

## VISION 21: ITS ORIGIN AND PURPOSE

In recent years, a series of international consultations have brought to public attention a startling but unavoidable conclusion: a major part of humankind lives amidst immeasurable misery. Billions of the world's citizens live without access to hygiene, sanitation and water, and just as important, their lot will not be improved in the foreseeable future in the absence of unprecedented, global action.

In 1994, government ministers from 40 countries, meeting in Noordwijk, recognised that "business as usual" was woefully inadequate. Participants at the November 1997 meeting of the Water Supply and Sanitation Collaborative Council in Manila decided to push harder toward resolving the unmet needs of billions of their fellow citizens.

VISION 21 is the result. It draws on accumulated experience of the water and sanitation sector, particularly during the International Drinking Water Supply and Sanitation Decade (1981-1990), and the consensus reached over these years. In the course of the Vision work, community groups and individual women and men around the world have provided major contributions to this collective wisdom.

VISION 21 is a practical picture of the future we seek to create. It aims to inspire women and men to overcome obstacles and achieve fundamental changes. Its message is for everybody, particularly for the leaders and professionals who have the power and knowledge to help people to turn visions into reality. It also aims to inspire those still without water supply, sanitation and hygiene services, to initiate action themselves and call on their leaders to bring these services about.

Its participatory process makes VISION 21 genuinely unique. It is the product of very many consultations, beginning in 1998, which have brought together more than 3,000 women and men at local, district, national, regional and global levels. They have shared their aspirations and their strategies for practical action toward universal access to hygiene, water supply and sanitation. VISION 21 is not therefore a document intended to sit on bookshelves gathering dust. It is the start of a movement. Activists can apply its strategies to suit specific needs and priorities.

VISION 21 recognises that if the goal of water, sanitation and hygiene for all is to be achieved, people's roles must change. The most important actors in this new paradigm will be individuals and groups in households and communities with new and important responsibilities for their own water, sanitation and hygiene services, as part of a collective strategy. Others play vital roles as well. Public authorities will need to support individuals and families in these efforts, clearing large-scale obstacles and carrying out the work households and communities cannot manage for themselves. Similarly, water sector professionals must combine their technical skills with an ability to communicate with others. All these groups working together can achieve this Vision.

VISION 21 stands in its own right, as an agenda for all those directly involved in resolving urgent needs in hygiene, sanitation and water supply. It also represents the "Water for People" component in the overall World Water Vision, compiled by the World Water Council for presentation to the Second World Water Forum at The Hague in March 2000.



VISION 21 is brought out by the Water Supply and Sanitation Collaborative Council, following consultations with people in communities, NGOs, professional organisations and governments around the world

# ***VISION 21:***

---

A Shared Vision  
for Hygiene,  
Sanitation and  
Water Supply  
and

A Framework  
for Action

Also Forming the  
***Water for People***  
Component of the  
World Water Vision



A close-up, high-contrast photograph of a woman with dark skin and short hair, wearing a small hoop earring. She is leaning forward, her face close to her cupped hands, drinking water. The water is captured mid-pour, creating a dynamic, sparkling effect as it falls from her hands into a dark container below. The lighting is dramatic, highlighting the contours of her face and the texture of the water droplets. The background is dark and out of focus, suggesting an outdoor setting with some vertical structures.

## VISION 21

A clean and healthy  
world:

A world in which  
every person has  
safe and adequate  
water and sanitation  
and lives in a  
hygienic  
environment.

VISION 21 is an initiative to put an end to a global crisis. Despite enormous achievement over the past two decades, an estimated one billion of the earth's citizens still lack safe drinking water while almost three billion have no adequate sanitation. More than two million children die each year from sanitation-related diseases. These factors compound the suffering of more than a quarter of the developing world's people who now demand a healthy environment for living. VISION 21, brought out by partners in the Water Supply & Sanitation Collaborative Council, offers a practical picture of a future in which this shameful scandal is brought to an end.

VISION 21 demands collaborative action by empowered people in households, communities and authorities. This participatory ethos is at the core of the VISION 21 process, underlining the role of civil society in achieving its purpose. VISION 21 demands fresh attitudes and commitments, reflected in new policies and activities, at every level of society and governance.

VISION 21 is directed to achieving a world by 2025 in which each person knows the importance of hygiene, and enjoys safe and adequate water and sanitation. The futuristic scenario describing a better world explains how this can be achieved. "Following the turn of the 20th century, governments and civil societies accepted access to water and sanitation as basic human rights, and linked water, sanitation and hygiene needs with broader development goals and poverty reduction, using them as an entry point for development work. The real breakthrough came when all agencies recognized that the most effective action came from the energy of people themselves. Quality leadership and democratic governance provided the environment within which 20th century visions become 21st century realities".

With this Vision in mind, the essence of VISION 21 is to put people's initiative and capacity for self-reliance at the centre of planning and action. The foundation is recognition of water and sanitation as basic human rights, and of hygiene as a prerequisite. Together they form a major component in poverty reduction. Such recognition can lead to systems that encourage genuine participation by men and women, resulting in the acceptance and practice of hygiene, coupled with safe water and sanitation at the household level. These factors can improve living conditions for all, and most particularly for children and women. They can contribute significantly to sustainable and self-reliant patterns of human development and wellbeing.

"Governments do not solve problems, people do", recalls VISION 21. Its approach to people-centred development takes the household as the prime catalyst for change, the first level in planning and management of environmental services. Change demanded and achieved at the household or neighbourhood level, leads on to ripples of cooperation and action involving communities, local authorities and then beyond, to actions required of district, state, national and global authorities.

Committed and compassionate leadership and institutional reform are seen as essential motivators for change. Gender equality is needed, not only for social justice but also as indispensable to better water management and to the understanding, demand and use of sanitation and hygiene practices. Population growth and its particular pressures on the urban challenge underline the need for decentralised approaches and new partnerships, including those that involve non-government and private initiatives.

Achieving VISION 21 requires actions on each of these issues through new attitudes and commitments. Social mobilisation strategies are the key, with emphasis on demanded efforts which can release and direct people's capacities for action. Authorities should be encouraged to adopt new roles and responsibilities within a spirit of decentralisation. A central factor is equity in the distribution of water resources, accommodating the special needs of women and children.

Systems of financing and cost recovery must protect the poor while simultaneously encouraging private initiative. Organisational structures should be examined in the context of a household-centred approach. Suitable legislative and institutional arrangements to provide an enabling environment for rapid change include new systems of taxes and tariffs, regulatory frameworks that can encourage both equity and enterprise, and greater autonomy and accountability among service providers. Shared water resources management is becoming a must. Other supporting actions include improving technologies, and operation and maintenance, as well as meeting special situations of disasters, emergencies and conflicts. VISION 21 is of value to both developing and industrialised countries, although the latter have their own special areas of concern.

Mobilising resources for achieving VISION 21 places emphasis on capacity building that can make peoples' energies and creativity the most important asset. The document estimates that for achieving VISION 21 goals, resources in the order of US \$9 billion will be required each year for the development of basic services. That this money is affordable and available is a major message of VISION 21. It also underlines the opportunities offered by debt relief. It recalls the 20/20 recommendation of the 1995 World Summit for Social Development that developing countries allocate 20% of their public expenditure to basic social services while, in turn, donor countries should allocate 20% of their annual development support budgets to the same sectors.

VISION 21 argues that although past goals may have remained unfulfilled, setting goals and targets is essential to managing a process of change. It introduces a 'Basic Water, Sanitation and Hygiene Requirement' that depends on the prevailing conditions, but that includes a minimum of 20 litres of water per day for persons who understand their personal hygiene needs and use a sanitary latrine. VISION 21 underlines the importance of hygiene if basic water and



sanitation services are to actually achieve better health. It suggests that each country establishes the minimum standards of service by which it will measure its own progress in achieving the Vision. Sample targets suggested for achievement by 2015 and 2025 can be adopted by each community, city or country to meet its own situation.

VISION 21 concludes with the introduction of a Framework for Action. This places community and country action at the centre – to prepare their own Vision and develop an action programme to achieve it. The Framework aims to assist people at community, country, regional and global levels to identify areas for action, to enlist the commitment of

national governments and their partners to take up the challenge, to mobilise the global community to support the development of country Visions and their subsequent achievement, and to provide supporting tools.

As the VISION 21 team sustains its contacts with countries in which the Vision process is on-going, the Collaborative Council will prepare an international advocacy plan for action through its members in more than 130 countries. They will together help generate the necessary human, technological and financial resources and appeal to an inescapable international responsibility through collaboration and solidarity.



# TABLE OF CONTENTS

A VISION OF THE WORLD IN THE YEAR 2025.....	vi
I. VISION 21.....	1
1-1 The Shared Vision .....	1
1-2 The Conceptual Framework.....	2
1-3 Participation at Work: The Power of VISION 21 .....	2
II. THE CORE POINTS OF VISION 21 .....	5
2-1 People Come First.....	5
2-2 A Human Right to Basic Services .....	5
2-3 Entry Point to Human Development and Poverty Elimination.....	5
2-4 Committed and Compassionate Leadership .....	6
2-5 Synergy of Action.....	6
2-6 Hygiene and Sanitation as A Revolutionary Priority .....	7
2-7 Gender Equity for Lasting Change .....	8
2-8 The Challenge of the Urban Poor.....	8
2-9 Institutions as Change Agents.....	9
2-10 Mobilisation for Affordable Services .....	10
2-11 Shared Water Resources Management .....	11
III. ACHIEVING VISION 21.....	13
3-1 People Accepting Responsibility for Local Development .....	13
3-2 Fulfilling the Human Rights .....	14
3-3 Linkage with Human Development and Poverty Elimination .....	15
3-4 Mobilising Leadership at Every Level .....	16
3-5 Developing a Culture of Collaboration .....	18
3-6 Prioritising Hygiene and Sanitation .....	19
3-7 Integrating Gender into Planning and Action.....	22
3-8 Responding to the Urban Poor .....	23
3-9 Transforming Legislative and Institutional Arrangements.....	24
3-10 Mobilising Resources for Affordable Services .....	26
3-11 Practising Water Resources Management.....	28
3-12 Stressing Additional Issues Towards VISION 21.....	30
Appropriate Technology.....	30
Operation and Maintenance.....	30
Disasters, Emergencies and Conflicts.....	31
Issues of Special Reference to Industrialised Countries .....	31
IV. SETTING TARGETS AND INDICATORS AND MONITORING ACHIEVEMENTS .....	35
4-1 Goals and Targets .....	35
4-2 Indicators and Monitoring.....	36
V. FRAMEWORK FOR ACTION.....	39
5-1 Next Steps at the Community level .....	39
5-2 Next Steps by Institutional Service Providers.....	40
5-3 Next Steps at the Country Level.....	41
5-4 Next Steps at the Regional Level.....	42
5-5 Next Steps at the Global Level .....	43
5-6 Phased Activities.....	44
Annex 1 SITUATION IN REGIONS OF THE WORLD .....	47
Annex 2 REGIONAL VISIONS .....	50
Annex 3 THE ORGANISATION OF THE VISION 21 PROCESS.....	53
Annex 4 COUNTRIES PARTICIPATING IN THE SOCIAL MOBILISATION PROCESS .....	53
Annex 5 THE KNOWLEDGE SYNTHESIS PAPERS .....	54
Annex 6 REGIONAL AND NATIONAL REPORTS.....	56
REFERENCES .....	57
Annex 7 VISION 21 AMBASSADORS .....	58
MILESTONES OF CONSENSUS.....	cover III

The year is 2025. Virtually every man, woman and child on the planet knows the importance of hygiene and enjoys safe and adequate water and sanitation. People work closely with local governments and non-governmental organisations to manage water and sanitation systems so as to meet basic needs while protecting the environment. People contribute to these services according to the level of service they want and are willing to pay for. Everywhere in the world, people live in clean and healthy environments. Communities and governments benefit from the resulting improved health and the related economic development.

Many of the water-related diseases that were rampant at the dawn of the 21st Century have been conquered. Revitalised international efforts to meet basic water and sanitation needs have been combined with effective promotion of hygiene practices. Improved primary health care and pollution control have greatly reduced the prevalence and severity of many diseases. Scientists around the world continue to identify links between cancers and chemical contamination of water, together with new methods for preventing and removing such contamination.

Water services are planned on the basis of sustainability. Good management, transparency and accountability are the norm. Inexpensive, water-efficient equipment is widely available. Rainwater harvesting is applied broadly. Municipal water supplies are supplemented by extensive use of reclaimed urban wastewater for non-potable uses (and even for potable uses in seriously water-short urban areas). In some dry coastal places, water supply is augmented by desalination. Many cities and towns use low- or no-water sanitation systems, with communities and local authorities managing collection and composting services. In both water and sanitation services, no need is seen for expensive and controversial new projects.

How has this happened? Real improvements began in the late 1990s, following widespread re-examination of water policies during the Drinking Water Supply and Sanitation Decade in the 1980s. At the insistence of their constituents, authorities at all levels designed programmes to address water scarcity and to improve the appalling water, sanitation and hygiene situation confronting billions of people in urban and rural communities both. Governments recognised water and sanitation as basic human rights, while civil society pressured public authorities to act accordingly. At the first major water meetings of the 21st century, governments, international aid agencies, private companies, educational establishments and



non-governmental organisations accepted this joint approach toward meeting the goal of safe and adequate water, sanitation and hygiene.

Progress accelerated when agencies embraced the reality that they could achieve such a goal only by committing themselves to sustained and consistent policies and actions. These included linking water, sanitation and hygiene needs with broader human development and environmental goals, and using water as a starting point for other development work. The real breakthrough came when concerned agencies all recognised that the most effective action came from the energy of people themselves. Both men and women have played central roles at all levels. Good governance and leadership enabled the mobilisation of people, supported by both public and private institutions, working together. This collaboration led to quantum leaps in equitable water distribution, sanitation access and use, and the spread of hygiene practices. Improved basic water and sanitation improved overall health, reduced the cost of health care, increased people's working productivity, and freed the time of women and children for educational, commercial and community activities – benefits that far outweighed the costs of the improvements.



## I. VISION 21

### 1-1 The Shared Vision

*A clean and healthy world: A world in which every person has safe and adequate water and sanitation and lives in a hygienic environment*

Entering the 21st century, the Earth is the home for six billion people. Many of those live in wealth. But one billion people lack safe drinking water and almost three billion people (half of the world's community) lack adequate sanitation. This situation is humiliating, morally wrong and oppressive.

Unhygienic conditions and the lack of sanitation and water services cause more than two million children to die each year from water-related diseases. Over a quarter of the developing world's people live in poverty, of which the lack of a healthy living environment is a major component. Poverty also reigns in many sections of the new independent states and the industrialised world. There too, unhygienic conditions often prevail. The global community has made advances in many fields but it has failed to ensure these most basic needs of deprived people.

In order to change these conditions, a Vision is offered of a clean and healthy world in which every person has safe and adequate water and sanitation, and lives in a hygienic environment. Priority is given to sections of society, both urban and rural, where these basic provisions are lacking. Everywhere else actions are needed to safeguard existing services, on which this Vision places great value. Leaders and decision-makers all over the world are urged to commit themselves to achieve VISION 21. It can be done. The technology and resources can be available, provided a collective will exists.

This document is the start of a collective movement forward toward making the world a better place. With the active commitment of people in urban and rural communities, their leaders, and sector professionals, water, sanitation and hygiene will be fundamental building blocks for human development and for the elimination of poverty.

### THE ESSENCE OF VISION 21

The four decisive components which determine the VISION 21 approach are:

- **Building on people's energy and creativity at all levels**, requiring empowerment and building the capacity of people in households and communities to take action, and applying technologies that respond to actual needs.
- **Holistic approach**, acknowledging hygiene, water and sanitation as a human right, and relating it to human development, the elimination of poverty, environmental sustainability and the integrated management of water resources.
- **Committed and compassionate leadership and good governance**, changing long-accustomed roles, leading to new responsibilities of authorities and institutions to support households and communities in the management of their hygiene, water and sanitation, and in being accountable to users as clients.
- **Synergy among all partners**, encouraging shared commitment among users, politicians and professionals; requiring professionals within the water and sanitation sector to combine technical expertise with an ability to work with users and politicians and with the sectors of health, education, environment, community development and food.





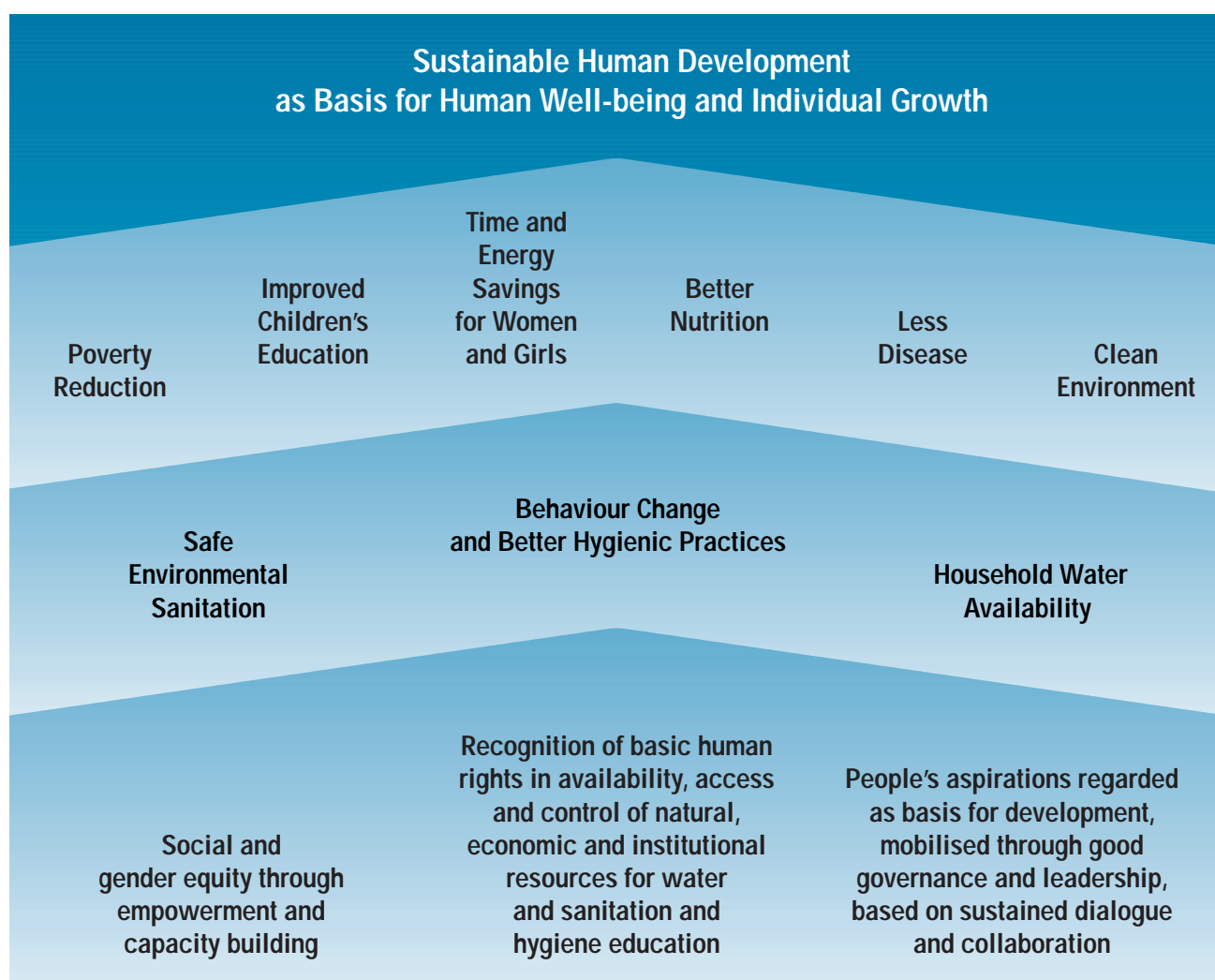
## 1-2 The Conceptual Framework

The following diagram summarises the reasoning behind VISION 21. It is based on the premise that people have the aspirations and energies to fulfil the human right of a clean and healthy world, with access to hygienic conditions, sanitation and water for everyone. If these energies are harnessed, and if this right is taken seriously and strong measures taken to implement it, a clean and healthy world will be within everyone's reach.

Capacity building and empowerment need to go hand in hand to facilitate new roles and responsibilities for all partners, as well as for social and gender equity. Empowerment

particularly is both an objective and a prime means for achieving VISION 21 goals.

Good governance will play a major role in the pursuit of this conceptual framework. Meeting the expressed demand of people for better services is closely linked to the need for democratisation and decentralisation, the advancement of which is enhanced by empowerment and capacity building. This can lead to greater opportunity and responsibility of people at local levels, and to increased management of their own resources, resulting in sustainable human development. In turn this will support individual growth and wellbeing in harmony between humankind and nature.



## 1-3 Participation at Work: The Power of VISION 21

The enticing picture of the future painted by VISION 21 is more than a dream. Already, the thousands of people who contributed inputs to its development have become powerful advocates for its realisation. That is the real strength of the participatory process that is at the heart of this document.

VISION 21 has been participatory from the start. It began with meetings in towns and villages in 21 countries (listed in Annex 4). Local people – men, women and children – joined local NGOs, citizens' groups, and other "stakeholders". With guidance from local catalysts, the groups looked a generation ahead. What water, sanitation and hygiene environment would they like to see in their communities in the year 2025?

Having painted this picture for themselves, the people then assessed what had to change to bring about their vision. Practical considerations about the limited capacity of governments and central agencies came into the picture now. Most importantly, the participants took stock of what they themselves could do, what local resources could be mobilised, and how combining their skills and experiences could start the process of change.

The results of these local meetings were varied. Several are described briefly in boxes in Sections 2 and 3. Some common themes are evident. Given encouragement, empowerment and some technical and financial support, the communities themselves could and would willingly manage the process of change. Not only would they be willing to do so; in many cases there was already an impatience to get on with the job. Visioning had whetted the appetite for action. NGOs and CBOs saw opportunities to mobilise local stakeholders and begin to implement community water supply or latrine programmes or hygiene education. Invariably too, the improvements were affordable and sustainable and required less investment from the government than alternative centralised schemes.

Following the local meetings, the different visions were reviewed at National Consultations organised by the Water Supply and Sanitation Collaborative Council's National VISION 21 Coordinators and involving government departments involved in the water, sanitation and hygiene sectors. These meetings saw the start of dialogue (sometimes for the first time) between the government and the community representatives and NGOs. Invariably, the local visions were well received. In some cases, the National Consultation led to the creation of a VISION 21 coordinating committee charged with formalising the vision process as a planning tool.

Next, the Vision process moved to five Regional Consultations. Here, contributors from the national meetings were joined by participants from countries not yet part of the national Vision exercise. The resulting Regional Visions, summarised in Annex 2, represent a broad consensus of priorities in the regions concerned. All subscribe wholeheartedly to VISION 21 as presented here. All believe that Vision is achievable, and all are ready to play a part in its achievement.

The final part of the process was a Global Consultation, fittingly in Gujarat. There the final version of VISION 21 was endorsed by a gathering of stakeholders representing all the regions.

So, VISION 21 has itself created the platform for action and a model for achieving the clean and healthy world that is its goal. It is not hard to see how this process can be replicated all over the world. All it takes is enlightened leadership from national governments willing to trust and empower their people to have a leading say in their own destiny in the critical area of water, sanitation and hygiene. Training of facilitators is straightforward; the Collaborative Council has regional coordinators in all regions and national coordinators in 21 countries with more planned. And there are already thousands of VISION 21 ambassadors clamouring for action!

Let's get on with it!



## VISION 21 IN GUJARAT

The VISION 21 process began with a local consultation (one of more than 100 held around the world) in the Indian State of Gujarat. Guided by a VISION 21 facilitator, participants from local NGOs and community groups met to visualise how they would like to see their water, sanitation and hygiene situation change in the next generation. The process was extended via meetings and visits to communities and individual households, and the ideas were combined into a recommended action programme for the whole state (with a population of 44 million, Gujarat is bigger than many countries). The result is a comprehensive set of targets and goals accompanied by means of implementation. Among the highlights: a plan to reduce per capita spending from 2,000-2,500 rupees per capita to 1,000-1,500 over the next ten years, by using lower cost technologies and mobilising community resources; an immediate priority to install separate latrines for boys and girls in every school in the State by 2010; and natural resource management groups, managed by women, established in every village (with the State remaining an active partner).

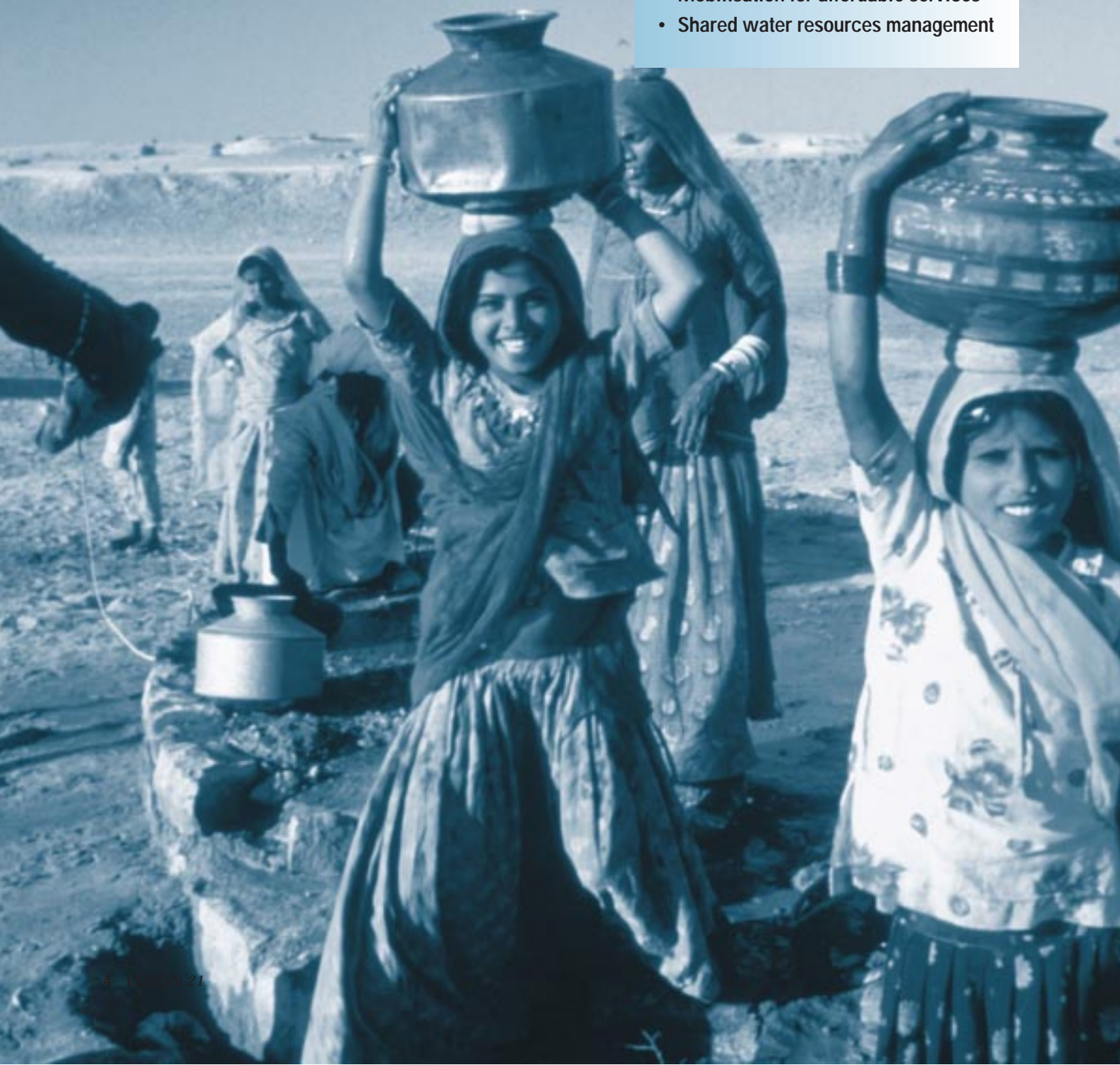
This is not a pipe dream. It is being discussed in a very positive atmosphere with the State Government and the Gujarat Water and Sewerage Board. Resources are being mobilised, and the "visionaries" are now the action team.

Source: VISION 21 Team.



## VISION 21 CORE POINTS

- People come first
- A human right to basic services
- Entry-point to human development and poverty elimination
- Committed and compassionate leadership
- Synergy of action
- Hygiene and sanitation as a revolutionary priority
- Gender equity for lasting change
- The challenge of the urban poor
- Institutions as change agents
- Mobilisation for affordable services
- Shared water resources management





## II. THE CORE POINTS OF VISION 21

In many places in the world the call for human wellbeing, supported by democratic processes, is on the increase. VISION 21 is a response to this call. The Core Points summarise the major changes and challenges implied in the Vision. They describe the culture inherent in VISION 21, a culture mobilised by awareness and commitment to change.

### 2-1 People Come First

#### PEOPLE'S PARTICIPATION

*People's participation is becoming the central issue of our time. The democratic transition in many developing countries, the collapse of many socialist regimes, and the worldwide emergence of people's organisations - these are all part of a historic change, not just isolated events.*

Source: Human Development Report 1993

The fundamental premise in this Vision is the essential need to have people's initiative and management of their own quality of life at the centre of planning and action. This requires a reversal in prevalent directions of thinking and action. It requires starting at the level of households or neighbourhoods, working up from there to community and higher levels.

People have their own initiative and resources. These can and must be harnessed, in the framework of democratic processes, to ensure that development matches people's own needs and commitment. Governments and institutions need to respond to these. Such a collective strategy is essential for sustainability.

### 2-2 A Human Right to Basic Services

Hygienic conditions and adequate access to safe water and sanitation services are recognised as fundamental human rights. They are implied in the founding charter of the United Nations, and supported by major human rights treaties, conventions, covenants and official practice. This formal designation empowers citizens to demand these services, and obliges governments that have signed the conventions to promote and facilitate the rights – both within their borders and as donors to other countries.

Emphasis on the duty of governments and societies to respect and implement this human right, and to accept the responsibility which must accompany the right, can help to give a high priority to basic services.

### 2-3 Entry-Point to Human Development and Poverty Elimination

There is an immensely powerful link between human development and water, sanitation and hygiene. Practice shows that these often form an entry-point to human development and poverty elimination.

## HUMAN POVERTY IS A DENIAL OF HUMAN RIGHTS

Human poverty constitutes a denial of fundamental human rights. To promote social progress and raise the standard of living within the wider concept of freedom, international human rights law – as enshrined in the UN Charter, the Universal Declaration of Human Rights and other treaties and declarations – recognizes economic and social rights, with the aim of attacking poverty and its consequences. Among these rights are an adequate standard of living, food, housing, education, health, work, social security and a share in the benefits of social progress.

International law recognizes that many countries do not have the resources to achieve some of these rights immediately; nevertheless, states are obliged to take steps, to the extent that their resources allow, toward economic, social and cultural rights. International law also obliges the international community to assist poorer countries in addressing their resource problems, and commitments have been made at UN conferences to increase development assistance, focusing on human development priorities and the eradication of poverty.

All countries except Somalia and the United States have ratified the Convention on the Rights of the Child. Article 24 of that Convention enjoins signatories to take appropriate measures for the provision of clean drinking water, hygiene and environmental sanitation. Well over two-thirds of all countries have ratified other conventions related to poverty and human rights.

Ratification status of major human rights conventions, 1 March 1997:

	Countries that have ratified or acceded	Countries that have not ratified or acceded
Convention:		
Economic, social and cultural rights, 1996	135	57
Civil and political rights, 1966	136	56
Elimination of discrimination against women, 1979	153	39
Rights of the child, 1989	190	2

Source: United Nations Centre for Human Rights  
1997 Human Development Report.

## WATER, SANITATION AND HYGIENE AND HUMAN DEVELOPMENT

Improved water, sanitation and hygiene help strengthening human capabilities and broadening human choices by

- reducing the health burden of waterborne and water-washed diseases
- reducing the time taken off work (or school) by ill people and their carers
- improving nutrition due to reduced losses of nutrients through diarrhoea
- reducing the time and effort spent, normally by women and children, to carry water from distant sources
- making time for other activities such as children's school attendance and adults' income generation
- improving people's self-worth and social status
- improving privacy and dignity, especially for women

Source: IIED

## DATA ON WATER-RELATED MORTALITY

Water-related diseases caused an estimated 3.4 million deaths in 1998, broken down as follows:

Disease	Deaths (000)
Diarrhoeal Diseases	2,219
Malaria	1,110
Trypanosomiasis	40
Intestinal Worm Infections	17
Dengue	15
Schistosomiasis	7

The majority of these deaths were children.

Source: WHO 1999 World Health Report

Many communities recognise this by giving them top priority in their own visions of their future. Experience has also shown that activities to improve water, sanitation and hygiene can lead to other developments and can serve as an entry-point to better governance.

Poverty is a severe blockage to human development. By any definition, inadequate water, sanitation and hygiene contribute significantly to poverty. Poor people themselves consistently place lack of water as one of their main poverty indicators.

In view of their huge mutual effects, it is therefore essential that water, sanitation and hygiene are included in human development and poverty elimination programmes.

### 2-4 Committed and Compassionate Leadership

The realisation of this Vision implies committed and compassionate leadership. This is required at all levels, from the household and the community to the global level.

Leadership signifies that there is not only a goal to be achieved, but that there is also a constituency to be empowered and inspired. Leadership has to ensure that the principle of putting people's initiative at the centre of planning and action is supported by an enabling environment and backed by effective policies, legislation and institutional arrangements.

Good governance, based on institutions and systems in which citizens participate as equals, is the context within which effective leadership can flourish. One of its major tasks is to deal adequately with the menace of corruption.

### 2-5 Synergy of Action

Achieving hygiene, sanitation and water for all people requires the efforts of a wide range of individuals, institutions and organisations. The pace and complexity of change is such that isolated actions cannot suffice.

A major contributing factor to the existing backlog is the lack of synergy of action between different stakeholders and actors. Elimination of this backlog requires a principle intention of working in unison towards a common goal, thus making the whole of the effort greater than the sum of its parts. This is also needed to place water supply, sanitation and hygiene within the context of human development and poverty reduction.

Synergy of action will ensure that freshwater ecosystems are maintained in such a way as to continue providing people's basic water requirements, which must take priority over all other water uses. In return, efficient management of domestic water services, and the elimination of human and industrial waste as a major pollutant of natural systems, must help overall water resource management. As population increase can be a major contributor to a water crisis in the new century, such measures are urgent.

Collaboration is the way to greater synergy. This involves more than just different agencies and actors exchanging information about what they are doing. It involves partnerships, mutual trust and understanding. The focus must be on the goal, putting aside rivalries

and conflicts between agencies and departments. Collaboration must be seen as a principle that needs conscious adoption, rather than merely as a way of working. This will optimise resources and actions, forming a basis for mutual support, and avoiding duplication, gaps and conflict.

## 2-6 Hygiene and Sanitation as a Revolutionary Priority

Experience has shown that clean water alone leads only to minor health improvements. The essential factor is sound hygiene behaviour i.e. personal hygiene recognised as a core issue in its own right, with adequate sanitation and clean water as supporting components. While each of the three components alone has some health benefit, it is their combined effect which is far greater. Hygienic behaviour is virtually impossible without a source of safe water and safe means of disposal of human and other wastes.

This is revolutionary knowledge. It means that the prime focus must be on raising hygiene awareness and promoting hygienic practices. This also means that the principal concern must be for the 3 billion people who lack adequate sanitation (in which the 1 billion who lack safe water are included). It means that those countries with good water supply and yet poor sanitation remain high priorities for action. It also recognises that water and sanitation departments and agencies have done far too little work in sanitation compared with their work in water, and that this situation must change.

Hygiene promotion is urgently needed. Many people do not understand the link between poor hygiene and sanitation and disease, nor is a healthy environment understood in these terms. Nobody has explained it to them. In most societies, sanitation and hygiene involve difficult issues of taboos and shyness.

The impact of waste elimination on human health as well as on the quality of the environment is little understood. Because water has always taken a central role in people's cultures and priorities, it is only natural that they should demand water as the first priority, not sanitation or hygiene promotion. Engineers highly qualified in water but untrained and uninterested in sanitation or hygiene often lead water sector agencies. Thus hygiene promotion and sanitation are either ignored or added on to water programmes as an afterthought. The medical profession also plays its part. It concentrates most often on cure rather than prevention, neglecting the critical importance of hygiene and sanitation. The need for genuine transformation in these entrenched positions underlines the truly revolutionary nature of the change inherent in this Vision.

## THE HEALTH BENEFITS OF HYGIENE, SANITATION AND WATER

India's Socio-Cultural Awakening Movement surveyed people's sanitary habits before and after implementing an integrated water, sanitation and hygiene project. Before the project, 0% of the population defaecated in a latrine, 43% by the roadside and 57% in other outdoor locations. After the project 74% defaecated in a latrine, 0% by the roadside and 26% in other outdoor locations.

These figures are impressive but sustainable behaviour change or health benefits are notoriously difficult to prove scientifically. A 1999 review by the WELL (Water and Environmental Health at London and Loughborough) Resource Centre applied strict criteria to identify only the studies that were scientifically rigorous. It found, for example:

- A project in Kikwit, Republic of Congo, carried out a randomised controlled trial of a hygiene education intervention intended to reduce diarrhoea. The children in the communities in which the intervention was carried out experienced an 11% reduction in the risk of reporting diarrhoea during the peak season, while unhygienic behaviours were reduced by 10%.
- A project promoting hand washing with soap in a village in Indonesia was surveyed before, at the end, and two years after the project. The percentage of people who washed their hands with soap after defaecating rose from 0% before the project to 92% after it, and was sustained at 52% two years later.

Other researchers have also collated the health survey results from many different water and sanitation projects with large numbers involved. Using diarrhoeal disease incidence (morbidity) as the measured indicator, the analyses show greater improvements due to the combination of hygiene, sanitation and water than due to each individually. For example, Steven Esrey analysed data from 144 projects for USAID's Environmental Health Project and found 36% reduction in morbidity due to water and sanitation combined, with 26% reduction due to sanitation alone and 17% due to water alone.

Sources: WELL Task No. 165, Esrey, Wan, Cairncross



## WORKING DEFINITION OF GENDER

Gender refers to the socially determined roles and responsibilities of women, men and children. Gender is related to how we are perceived and expected to think and act as women, men or children (girls and boys) because of the way society is organised.

Source: RWSG-East and Southern Africa

## EQUITABLE INVOLVEMENT OF WOMEN AND MEN

Abundant qualitative and quantitative evidence is available showing that where women and men of the various social user groups take part in consultation, decision-making and are trained, facilities are used, management improved and hygiene behaviour patterns strengthened. In contrast, absence of consultation of female water users and managers in projects in Togo, Indonesia, Guatemala and many others, led to these women not using the facilities – not because they had not been educated – but for good reasons such as wrong location, wrong design or problems over sharing facilities.

The design of irrigation schemes in Sri Lanka was adjusted in order to make safe water available to women for domestic use. Similarly in St. Lucia, laundry facilities were added to an irrigation system to avoid women standing in the water too long and contacting schistosomiasis.

On a household rainwater harvesting project in Gujarat, India, water committees were formed in five villages. The committees comprised approximately equal numbers of women and men. Despite hostility in the community towards women's participation in project work traditionally seen as men's work, they were active in many aspects: the committees' decision-making, the construction work, seeking a loan from a local bank for the project and, in one village, resolving a conflict between two social groups that was jeopardising the success of the project. In assessing the effects of the project, women felt particularly relieved by the availability of water at home at the end of each day's agricultural work.

Sources: van Wijk, IRC, International Secretariat for Water

## 2-7 Gender Equity for Lasting Change

There is a strong rationale for an increased focus on gender equality in relation to hygiene, sanitation and water. The first consideration is that it is an important issue of social justice to ensure that women as well as men have access to and control over resource and development interventions which affect them. The international community has recognised these rights.

Secondly, women as well as men are important stakeholders in water, sanitation and hygiene development. Indeed, in most parts of the world women are the managers of domestic water and of family health. Therefore attention to both women and men, and to the relations between them, is essential for effective development in the sector.

Gender analysis provides a more subtle and complex picture of women's roles within the family and community. It helps to explain why many of the more simplistic approaches to involving women in water and sanitation projects have failed. Biases persist and operate, despite all the rhetoric on the importance of women. They have a dual negative impact in maintaining (or even increasing) gender inequalities as well as inhibiting the achievement of sector goals. There is therefore a priority need for reducing and eliminating these biases because the Vision cannot be achieved if they are allowed to persist.



## 2-8 The Challenge of the Urban Poor

Urbanisation, and particularly the situation of the urban poor, requires urgent attention. The world's population growth is concentrated almost entirely in the cities of developing countries, both from natural growth and from migration. In many cases this growth outnumbers the capacities of conventional service provision. The result is that many cities around the world include large sections where the urban poor have grossly inadequate water, sanitation and hygiene services.

Migration in particular, often leads to inhuman situations. Attracted by the possibility of improved standards of living, thousands of people crowd sub-urban areas. In many cases, they have no choice other than to create illegal settlements, which quickly degrade into slums. There are cases in which municipal authorities discourage or even prohibit service provision to these settlements. Clearly urgent measures are needed. In too many cities, planners are confronted with apparently intractable situations and decision-makers are challenged to avoid social unrest.

Urban sanitation is an even harder problem to resolve than water supply. While already too many poor people in cities lack access to sanitation facilities, the size of the problem is increasing rapidly. New approaches are needed to put a halt to this misery, its threat to public health, and the resulting environmental degradation.

Water, sanitation and hygiene are key elements for urban management and development. They are crucial for urban stability in social balance, employment, basic health, industrial development and public services. In urban areas where these services are lacking, immediate action is needed. The longer it is delayed, the larger will be the barriers to overcome.

## 2-9 Institutions as Change Agents

As a response to the principles of this Vision, institutional development must ensure that indeed people come first and are at the centre of decision-making. Water, sanitation and hygiene services should be managed at a level closest to the user, recovering as a minimum the full costs of operation and maintenance, with mechanisms that ensure accountability to the consumer.

Decentralisation and democratisation are now impacting institutional structures for services. A wide range of institutional and management options for the provision and management of water and sanitation is possible and is being used across the world. However, the most effective and efficient services come from adoption of commercial principles in management and from effective regulatory mechanisms. These ensure service standards and accountability to the consumer, as well as to authorities.

The pace of institutional reform must be accelerated to accommodate these lessons so that water and sanitation institutions become a means to achieve the Vision rather than an obstacle providing unreliable, poor quality and intermittent services to only a small proportion of potential clients.

Institutional solutions may be a mixture of formal and informal arrangements, involving government, private, welfare and community organizations. Each has advantages in particular situations and partnerships, and in dealing with complex issues of the poor. As far as possible and without compromising the public good, it needs to be ensured that people in communities have the service level and management system that they want and can afford.

Relatively limited attention is usually paid to financing of human resource development. This is an essential input, without which the overall effectiveness of financial investment is put at risk.

## FUTURE URBAN GROWTH FIGURES

Over the next 25 years in developing countries, 95% of population growth will occur in urban areas. The urban population will roughly double in size, to over 4 billion people. The number of big cities with over one million people will almost triple to well over 500. By 2015, one person in five will live in a big city, compared to one person in nine now.

After 2020, all population growth in the developing world will occur in urban areas, as the rural population declines. By the middle of the new century, villages will cease to exist in many countries. Poverty will have largely been transferred to urban areas.

Source: Population Council

## URBAN INNOVATION: THE ORANGI PILOT PROJECT

The Orangi Pilot Project (OPP) operates in an area of Karachi, Pakistan, in which about a million people live. Since 1980, OPP has been helping the people of Orangi to construct their own latrines and local sewers, which discharge into the main Karachi sewers that run through the area. The people pay the capital costs of their infrastructure themselves, not depending on an outside agency. OPP has also carried out hygiene education and various training programmes for the people.

The results of OPP's work are impressive: in Orangi, more than 90 % of households have built their latrines, lane sewers and over 400 collector sewers. They have invested about US\$1.5 million in this work, which is less than 15% of the cost originally estimated by government agencies for a conventional sewerage system. Infant mortality has fallen from 130 per 1000 in 1984 to 37 per 1000 in 1991. In the same manner the Orangi schools, without assistance from the government or donors, have raised the literacy of residents to over 78% (compared to an estimated Karachi average of 62%).

The main components of OPP's approach are: to build on people's perceived needs, priorities and capabilities; to give priority to affordable systems and improvement of existing systems; to develop local teams of professionals, social organisers and technicians bound together by a common vision and strong ethical values; to support people in improving services rather than to impose a "project" perspective.

OPP keeps detailed accounts to help future extension or replication of its work and to ensure transparency and accountability. It collaborates with official agencies to promote new sewerage systems that divide responsibility between internal development (communities finance, build and operate the house latrines and local sewers) and external development (the government finances, builds and operates the trunk sewers and treatment plants).

Source: Arif Hasan, Akhtar Hameed Khan and the OPP; City Press, Karachi, 1999

## IMPLEMENTING SERVICE CONTRACTS IN MEXICO

Since October 1993, four private firms have been awarded service contracts to implement universal water metering, rehabilitate the distribution system and carry out a loss detection programme in Mexico's Federal District for a population of almost 9 million. The decision to involve the private sector was motivated by the urgent need to provide adequate water services for one of the largest cities in the world.

The Federal District Water Commission supervises the four private firms, reviews and analyses their financial statements.

A number of other public authorities continue to play an important role in the sector causing problems of duplication and overlap. In addition the four consortia have difficulties to determine their commercial efficiency in their respective areas and no incentive to pursue non-payers, as they have no ready access to complete information about which customers have paid.

Although it is too early to fully evaluate the success of the programme, important lessons have been learned. The transition to private sector management has achieved several goals. The change to metered consumption is one of the most important achievements. Substantial improvements have been made with the customer data base, metering and billing. In addition, there has been an important increase in the collection levels. The adoption of a phased approach has allowed mistakes to be corrected. Also dividing the city into zones has reduced the risk of monopoly as a contract may be revoked.

Source: Lilian Saade, IHE

## THE COSTS OF THE CHOLERA OUTBREAK IN PERU

A massive outbreak of cholera occurred in Peru in 1991, probably caused by contamination of seafood by untreated sewage. Within ten weeks Peru lost US\$ 1 billion due to cancelled agricultural exports and reduced tourism. This loss was more than three times as much as Peru had spent on water and sanitation during the previous ten years.

In the same year the number of cholera cases reached 320,000 with 2,900 deaths, most of which were among the poor. The epidemic spread quickly to most of Latin American and the Caribbean. To date, cholera is endemic in most of these countries.

Source: IIED and WHO

## 2-10 Mobilisation for Affordable Services

Water and sanitation services involve costs and are therefore not 'free'. Cross subsidies can be used to assist the poor and grants can assist capital development. Pricing must reflect a regulatory structure that is sensitive to concerns of equity and capacity, and that also ensures viable and sustainable pricing systems open to public scrutiny.

Poor people often pay far more for informal, poor-quality services than the wealthy do for piped water systems with heavily subsidised tariffs. And the poor often pay again through the suffering and losses experienced from preventable water-related diseases. This imbalance is economically unacceptable and morally wrong.

In view of the prevailing emphasis in our societies on economic considerations, the affordability of water, sanitation and hygiene receives much attention. However, there is ample experience showing that affordability is far less an issue than is often assumed. First, the potential of local mobilisation of finance is released when the principles of this Vision are adopted. People have demonstrated that they are willing to pay for reliable services. This is especially so in cases where the poorest urban residents currently pay water vendors four to five times the typical price of municipally supplied water.

Secondly, if the principles of this Vision are adopted and decision making is placed close to the community, the resulting costs of water, sanitation and hygiene services can be significantly reduced. This will result in figures far lower than those assumed so far. Leveraging community resources will reduce direct costs, distribute costs among many partners, reduce costs of centrally managed systems, and discourage corruption.

Thirdly, it takes more not to provide water and sanitation services than to provide them. A major outbreak of water-related disease can cost far more in medical care and lost productivity than the universal provision of safe water and sanitation. Similarly the cost of treating polluted water for consumption is significantly higher than treating unpolluted water.

Equitable financing and cost recovery are essential to enable services for the unserved, and particularly for the poor. Considerations of equity must be in balance with those of financial viability. Neither old dogmas about providing water and sanitation free, or new dogmas about always charging full cost pricing are adequate. Charges must be in line with the capacity of people to pay, especially of the poor. Options of payment in kind or in cash need to be considered.



## 2-11 Shared Water Resources Management

The fulfilment of a human right to adequate and safe water supply implies that in the context of integrated water management, first priority is given to water for domestic purposes. Since tap water must be safe at all times, drinking water quality policies and monitoring are essential components of management of drinking water systems.

An important aspect of water resources management is the ensurance of a good quality of water and of the environment, so that water used for human consumption does not need complex treatment. For this reason, and to safeguard the essential role of a clean environment, avoidance of pollution, and application of the “polluter pays” principle to all users need continuous emphasis. This implies adequate sanitation measures, without which water supply sources are in risk of serious pollution. It further points at the importance of universal hygiene awareness, since without the participation of the population, pollution control is doomed to failure.

Ensuring an adequate and safe water supply can also be assisted by new approaches to sanitation. An ecosystems approach to sanitation complements the ecosystems approach to freshwater management. Considering excreta as a resource to be recycled, rather than as a waste suitable only for disposal, is an effective way to reduce pollution and safeguard the water environment.



## A NEW APPROACH TO ENVIRONMENTAL SANITATION: THE BELLAGIO STATEMENT

In the world today, 1.2 billion people are without access to safe drinking water, 3 billion are without proper sanitation, and 50% of solid wastes remain uncollected. Meeting at Bellagio, Italy, from 1-4 February 2000, an expert group brought together by the Environmental Sanitation Working Group of the Water Supply and Sanitation Collaborative Council agreed that current waste management policies and practices are abusive to human well-being, economically unaffordable and environmentally unsustainable. They therefore called for a radical overhaul of conventional policies and practices world-wide, and of the assumptions on which they are based, in order to accelerate progress towards the objective of **universal access to safe environmental sanitation, within a framework of water and environmental security and respect for the economic value of wastes.**

The principles governing the new approach are as follows:

1. Human dignity, quality of life and environmental security should be at the centre of the new approach, which should be responsive and accountable to needs and demands in the local setting.
  - solutions should be tailored to the full spectrum of social, economic, health and environmental concerns
  - the household and community environment should be protected
  - the economic opportunities of waste recovery and use should be harnessed
2. In line with good governance principles, decision-making should involve participation of all stakeholders, especially the consumers and providers of services.
  - decision-making at all levels should be based on informed choices
  - incentives for provision and consumption of services and facilities should be consistent with the overall goal and objective
  - rights of consumers and providers should be balanced by responsibilities to the wider human community and environment
3. Waste should be considered a resource, and its management should be holistic and form part of integrated water resources, nutrient flows and waste management processes.
  - inputs should be reduced so as to promote efficiency and water and environmental security
  - exports of waste should be minimised to promote efficiency and reduce the spread of pollution
  - wastewater should be recycled and added to the water budget
4. The domain in which environmental sanitation problems are resolved should be kept to the minimum practicable size (household, community, town, district, catchment, city) and wastes diluted as little as possible.
  - waste should be managed as close as possible to its source
  - water should be minimally used to transport waste
  - additional technologies for waste sanitisation and reuse should be developed





### III. ACHIEVING VISION 21

The Core Points in Section II together reflect the culture of VISION 21 and represent its commitment to change. The points are attitudes and goals that can help motivate societies toward the Vision, from wherever they are located today. In Section III an attempt is made to assist such movement by suggesting approaches and strategies appropriate to each Core Point in turn. A Framework for Action (now in preparation and introduced in Chapter V) will contribute more specific approaches.

#### 3-1 People Accepting Responsibility for Local Development

“Governments do not solve problems, people do”. This observation at the Ministerial Conference on Drinking Water & Environmental Sanitation in 1994 has been amply borne out by the collective experience of the VISION 21 process. The application of people’s own energies and local decision-making and control is essential for sustainable human development. This is the cornerstone of VISION 21.

Empowerment, achieved through self-reliance, is central to this Vision. Such empowerment enables individuals and communities to understand their options for change, to choose from among them, to assume the responsibilities that these choices imply, and then to act to realise as well as sustain their choices.

Facilitating the required social and political processes to make empowerment possible is therefore a precondition to achieving water, sanitation and hygiene goals. These processes will need to create the opportunity for self-empowerment through capacity building – for which finance must be made available – and legal reform towards formalising the citizen’s place in decision-making. Such social development demands that the needs of the poor be accepted as a priority. The poor (particularly women) need special awareness of their rights and responsibilities, and support in achieving those rights.

On this basis, the process of decision-making and action can start at the household level i.e. the level at which consumers decide what level of services they want and can afford. The household becomes the core, the first level in the planning and management of environmental services. Functions that the household cannot assume are passed on to the next circle, the neighbourhood, then to the community, the district, the province, and so on. The ripple of responsibilities passing from one circle to another illustrates the principle that only tasks beyond the capacity of one circle are handed on to the next, implying an essential commitment to decentralisation and participatory structures. In applying this process it should be realised that households and communities are not necessarily homogeneous units and that in practice the differences in internal interests and power structures at these levels (such as in the position of women) need careful consideration.

The use of participatory approaches is essential in this process. These have been proved effective in demonstrating the principle of putting people first for the achievement of sustainable services. The necessary participatory tools are available and have been tested world-wide. Participatory approaches require:

- effective local institutions accountable to local citizens, both women and men

#### TWO EXAMPLES OF LOCAL-LEVEL SOCIAL DEVELOPMENT

The WAMMA programme is a partnership between the Tanzanian Government and the international NGO WaterAid to support community-managed water, sanitation and hygiene projects. The government and NGO field staff work together to motivate and educate the communities and local leaders. Together they have overcome the legacy of the people’s distrust for previous government programmes, and have placed decision-making power firmly in the hands of the communities. The communities manage their own water and sanitation projects well.

Barnabas Pulinga is a Government water engineer who has played a major role in the programme. It has transformed his working life. “We engineers used to design water projects in our office and keep the plans there. We thought the villagers couldn’t understand such things. Now we go to the village to do the design work and even the old ladies can draw a plan of the water project using a stick in the dust. It is a big change and a better way of working.” Mr. Pulinga is deeply impressed by the capacity of villagers to develop practical solutions to their own water problems, to plan and manage schemes which meet their needs, and to undertake tasks such as village mapping, construction of domestic water points and casting of latrine slabs, all previously thought to be the job of water department specialists. “I believe that the community can work wonders for their own development through their water and sanitation projects.”

Social development in the water sector in Zambia is promoted through the WASHE (Water, Sanitation and Hygiene Education) concept. A wide range of people from within the communities themselves and professionals in health and technical subjects work together on integrated water, sanitation and hygiene programmes. Each District has, or will soon have, a District WASHE Committee that comprises a wide range of people and makes the important decisions on water, sanitation and hygiene within that District. External support agencies’ roles are to support the Zambian professionals and community members through training and skills development, as well as to provide financial support.

Sources: Dodoma Regional Government/WaterAid Tanzania;  
Ministry of Water and UNICEF Zambia



## HUMAN RIGHTS STATEMENTS ABOUT WATER, SANITATION AND HYGIENE

Article 25 of the Universal Declaration of Human Rights (1948) states:

*"Everyone has the right to a standard of living adequate for the health and wellbeing of himself and of his family, including food, clothing, housing..."*

Article 12 of the International Covenant on Economic, Social and Cultural Rights (1956) states:

*"The States Parties to the present Covenant recognise the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. The steps to be taken . . . to achieve the full realisation of this right shall include those necessary for... the prevention, treatment and control of epidemic, endemic, occupational and other diseases."*

Article 24 of the Convention of the Rights of the Child (1989) provides that a child has the right to enjoy the highest attainable standard of health. Among the measures States are to take to secure this right are measures to:

*"combat disease and malnutrition...through, inter alia,...the provision of...clean drinking water as well as measures to ensure hygiene and environmental sanitation."*

Source: Dr. P. Gleick

## HUMAN RIGHT MECHANISMS

One way to act on the fulfilment of the human right on water, sanitation and hygiene is to set up a regional mechanism facilitating data collection, reporting and advocacy. These activities can build upon a network of country-based organisations, mostly independent researchers, social activists and NGOs.

The process of reporting and advocacy can address four dimensions of this human right:

1. The compliance of national governments with international and national legal commitments such as the Universal Declaration of Human Rights (art.25), the International Covenant on Economic, Social and Cultural Rights (art.12) and the Convention of the Rights of Children (art.24) or their own constitutions.
2. The adoption and respect of legal and ethical commitments regarding the rights of the unserved, underserved and the consumers by all stakeholders.
3. The respect of gender equity in water and sanitation both in access to services and involvement in decision-making and management.
4. Good governance, including community participation, accountable and transparent decision-making and management of water and sanitation at all levels.

Such a process could also be adapted for use at the national and community levels.

Source: G. Regallet

- dialogue with service providers on costs, benefits and operational responsibilities
- access to technologies appropriate to need
- capacity building to strengthen an ability to undertake and guide self-reliant action. Such capacity building is needed for all parties, including local citizens and service providers.

Individual and community initiatives need to be supported where possible. There is also a need to progress from ad hoc arrangements to robust community-based organisations. The development of civil society and user representation must balance local government and private sector interests.

In many parts in the world, women's roles in civil society and their representation in local government and private sector are minor relative to those of men. There are a number of constraints to women's more equitable involvement. These need to be clearly identified and tackled. A gender equality perspective is critical to mobilising households and communities toward new responsibility for development. It can ensure that women are not marginalised in these processes. Equal education for girls and boys has been shown to be important in this respect.

If a broad human development and poverty perspective is to be applied, there are other groups which also risk marginalisation. Socio-cultural criteria (such as ethnic group, class, religious affiliation and age) need also to be taken into consideration.

### 3-2 Fulfilling the Human Right

The human rights perspective forms a sound platform for the development of basic services, and therefore for implementation strategies. The key action towards fulfilment of a right to water, sanitation and hygiene is that of working towards its recognition at national and international levels.

Judging from the disgraceful conditions in many urban centres, immediate and imaginative action is necessary before these rights are translated into sustainable services. Obviously the recognition of the right to services should not be understood as an unlimited right to free services. Along with the right, comes a responsibility: to conserve and protect the resource and to contribute to the costs of sustaining services.

Not enough is known on how to achieve the fulfilment of these human rights and further work in this area is required. This includes awareness of new responsibilities, both of citizens and institutions of governance. Coalitions and partnerships will be essential, particularly with those experienced in human rights aspects of gender, children and the environment. A systematic educational approach on rights and responsibilities is needed.

The process of reporting to the Geneva Committee on the Implementation of various human rights conventions often prompts governments and others to do more to implement different aspects of the conventions. NGOs in particular use the reporting process to encourage practical action, to advocate and publicise issues, and sometimes to shame governments or other parties into action. This has

worked for women's and children's issues and could also work for water supply and sanitation.

Continued population growth and the rapid pace of development inevitably mean growing competition for scarce water resources. Integrated water resources management (IWRM) is vital and most countries of the world are already planning on that basis. The human rights perspective needs to be firmly established in these IWRM strategies and the supporting legislation.

### 3-3 Linkage with Human Development and Poverty Elimination

Water, sanitation and hygiene are important not only as a human right, but also as a step to national development and poverty eradication. This emphasises the critical importance of progress in this area.

Human development is the process of strengthening human capabilities to make and exercise choices toward a decent standard of living. A human development approach implies that all groups in society will be involved and will have the potential to influence, participate in and benefit from development actions and interventions.

Capabilities need to be strengthened to ensure that everybody knows how and why the use of facilities can improve their lives. There is a need for further work to define appropriate approaches in different situations. Education should form an essential component. In particular, it is vital to increase children's knowledge, motivation and good habits of health and self-care.

Moral and practical considerations compel humankind to end severe poverty in the shortest possible time. The Social Summit in Copenhagen in 1995, the largest summit ever held, accepted the goal of poverty eradication "as an ethical, social, political and economic imperative of humankind". 185 countries committed themselves to setting national goals, preparing strategies and setting national target dates for achievements. Almost 80 countries have completed their action plans and a further 40 are developing them. As a support, many international agencies have made poverty elimination (or its reduction) their central goal.

The Development Assistance Committee (DAC) of the OECD donor countries has focused on halving the proportion of people in poverty by 2015. It can be said therefore that poverty elimination is now a major theme for international development. The UNDP's Human Development Report includes lack of access to safe drinking water (along with lack of access to health services and inadequate nutrition) as one of five specific components of poverty.

There are many linkages between poverty and water, sanitation and hygiene. On the personal scale, improved behaviours and services lead to improved health. This, in turn, enables the poor to work more and to earn more to support their families. On the macro scale, improved water supply and environmental sanitation attract industries and investments into a community. These factors combined improve the local economy and help alleviate poverty.

## IMPLEMENTING, MONITORING AND REPORTING ON RIGHTS

It may be useful to distinguish between the principle of human rights and the processes of monitoring and reporting on progress toward their achievement. A legal obligation of governments to provide access to safe water and sanitation needs acceptance as a matter of principle. Such rights are important if the weak are to be empowered. Without clear rights, those who are more powerful, better educated and better connected have the advantage in obtaining services over those most in need. Once the principle is accepted, the exact nature of services and the conditions under which they must be provided can be translated into goals. These can reflect clear plans and commitment of resources, commensurate with a nation's capacity. Progress toward the realisation of goals can then be measured through qualitative and quantitative indicators, helping to transform goals into achievable rights. Reporting progress requires articulation of the problem and information on official programmes which respond to it. It requires understanding of laws, which relate to such rights, and information on the extent to which such laws are effectively carried out. Reporting can monitor institutional arrangements which must hold governments and others to account in meeting goals and thus fulfilling rights. Sustained campaigns will be needed toward this end. Experience shows that where programmes are not required to show their effectiveness, the original purposes of wellbeing and empowerment are often lost.

## POVERTY AND SUSTAINABILITY

There is a correlation between the state of a country's economy and the availability of basic services, between poverty and lack of safe water supply and sanitation.

Establishing sustainable basic services has been hampered throughout the developing world by circumstances in which the users cannot afford to pay for them in full. However, the availability of basic services is a necessary component of the eradication of poverty.

Therefore a vicious circle needs to be broken: on the one hand the sustainability of services depends upon the eradication of poverty and the building of viable, growing economies, whilst on the other hand the provision of basic services is a requirement of poverty eradication.

The implication of this is that water and sanitation sector professionals need to ensure that they understand the social and economic factors that influence this sector. They also need to ensure that water and sanitation issues are on the poverty eradication and economic growth agendas of governments and international agencies.

## HOW A HUMAN DEVELOPMENT APPROACH LEADS TO SUCCESSFUL WATER AND SANITATION WORK

The Hitosa Water Supply Scheme in Oromia Region, Ethiopia, was completed in 1995 and serves 65,000 people. The local people themselves planned and constructed it, and they now operate it successfully through an elected Water Management Board that employs 74 staff, all of whom are local people trained on the Scheme. The whole approach to the Scheme's construction and operation is based on the people's own wishes for their development.

Abebe Negusse, Head of the Water Management Board, is personally familiar with the situation in Hitosa, having spent much of his childhood there fetching water from distant rivers. He applied to work on the Scheme instead of training as a teacher or agricultural extension worker, in order to serve his community.

Yilma Kebede, the Board's Head of Finance, is also local. He is no dewy-eyed romantic about community management: "It runs in the same way as any other system. The difference is that decisions get taken more quickly because we are all on the spot and we are as affected as anyone else by what happens to the water supply."

Source: Oromia Regional Government/ WaterAid Ethiopia

## THE POLITICS OF SUSTAINABLE DEVELOPMENT

*"Sustainability demands the creation of a political order in which, firstly, control of natural resources rests to the maximum extent possible with local communities who are dependent on those resources; and, secondly, decision-making within the community is as participatory, open and democratic as possible. The bedrock of sustainable development is composed of freedom and democracy."*

Source: *Toward a Green World* by Anil Agarwal and Sunita Narain, Centre for Science and Environment, New Delhi, India.

It is important to note that women are amongst the poorest of the poor in many parts of the world. A focus on poverty must include a focus on gender. Because of gender differences and disparities, the causes of poverty for women and men can differ. Women and men can experience poverty in different ways. Survival strategies also often differ for women and men because of inequalities in access to and control over resources, decision-making and information. An increased focus on poverty in water, sanitation and hygiene cannot succeed if gender differences and disparities are allowed to persist.

### 3-4 Mobilising Leadership at Every Level

To realise VISION 21, the mobilisation of committed and compassionate leadership is needed at all levels: from village communities to teachers of youth groups and at schools, to rural local governments, to urban civic associations, to institutions and to ministers and heads of state. Democratic processes can help identify and inspire leaders who have a passion for their cause, and a deep desire to create a better world. They must have compassion for those marginalised within their societies and be determined to improve their lot. Their role must be to motivate and inspire people to fulfil their own aspirations, and to stand for the interests of the people they represent.

Leaders generally have the power to allocate resources. This is a political process, influenced by a wide range of factors. Principled leaders can champion the objective of the right to basic services, amidst all other conflicting demands. Leaders also have the power to remove political or bureaucratic obstacles that people themselves find insurmountable. Corruption is one of these obstacles, demanding the most urgent attention.

Good leadership rests on broadening the opportunity structure for men and women to empower themselves and to participate in improving society, redefining power relationships where necessary. These attributes, combined with a strategic viewpoint, can help turn this Vision into reality.

A strategy to mobilise suitable future leaders starts with leaders now in power. They can inspire future leaders to take up the VISION 21 challenge and inspire voters to support the leaders that will support their efforts.

An important goal for leadership is ensuring that water, sanitation and hygiene rank high on national and international agendas, through advocacy and other means. This will help to attract future leaders who are similarly committed to water and sanitation issues, and who can motivate others to achieve their goals. The support of respected leaders can also strengthen the legitimacy and political leverage of the goals themselves.

One area of concern with respect to leadership is the serious obstacles women face in gaining access to decision-making power. The gender imbalance at leadership levels in all areas, including within the water and sanitation sector, hinders the equitable involvement of both women and men. Concrete strategies need to be developed to ensure greater leadership of women in water and sanitation, and to take into account the implications of related gender imbalances at local government and community levels.



## INDIA'S TECHNOLOGY MISSION: MOBILISING SOCIETY FOR CHANGE

In 1986, India's Prime Minister Rajiv Gandhi introduced a National Technology Mission for Rural Drinking Water Supply and Sanitation. The goal was to cover 165,000 "problem villages" within a period of five years, and to do so through mobilising every section of society. Decentralisation, access to technologies of choice, cutting red tape and involving women as leaders and the local knowledge of NGOs were among the features of the Mission culture. Regions with particular challenges (such as fluoride, salinity ingress, guinea-worm infestation and groundwater depletion) were identified as the focus of Mini-Missions. Communication models were developed with local and professional expertise. Policies and programmes were drastically modified on the basis of research into prevailing levels of knowledge, attitude and practice. Integrated water resource management was introduced in areas of scarcity and models developed to study the impact of groundwater withdrawal and other environmental factors. The importance of understanding gender issues was addressed in project design, and particular attention paid to involving media in both understanding and evaluating these efforts.

The Mission achieved almost 95 percent of its goals within the given time frame. It was further extended on the basis of its successful demonstration. In later years, the challenge remained of sustaining leadership and political will that could ensure the permanence of genuinely participatory processes. The Mission experience has helped quicken a national conviction that sustainability depends most of all on communities that are empowered at the local level, where people must contend with age-old attitudes and practices, and with vested interests that are threatened by change.

Source: G.Ghosh/A.Chatterjee

## PARTICIPATION AND LEADERSHIP

A "latrine revolution" in China's Henan Province has provided an outstanding example of political commitment and strong local leadership. It started in 1987 in a few villages in Yucheng County because of the efforts of "Mister Latrine," the physician Dr. Song Lexin. It became a provincial programme in 1989 with full support of the Provincial Governor. By 1995, nine of the ten counties most advanced in latrine coverage in China were in Henan Province.

Dr. Song went from village to village on his bicycle, discussing the benefits of his latrine with the villagers. After the villagers experimented with a demonstration latrine, they gradually saw that the manure from this latrine made their apples grow larger and sweeter. Conviction that the latrines had made their villages richer was evident even eight years after the "revolution" began. Most of the latrines were still found to be kept very clean, thanks to the efforts of village women. In most cases, the communities themselves pay 90 percent of the total costs of their improved latrines. Efforts were underway to develop a revolving fund and other credit options to help spread latrine improvement to poorer villages in the province.

Source: IRC Water Newsletter, Dec 1995



## EFFECTIVE COLLABORATION AT COUNTRY LEVEL

The effectiveness of country level collaboration is very much a product of the individuals participating in it and largely determined by their interest, openness and communications skills. The following criteria help to facilitate country-level collaboration.

- Any co-ordinating mechanism or body should be neutral and, in particular, not be controlled by the principal government agency or donor to the sector. It should restrict itself to overall policy and macro-planning and not be involved in implementation. It should act as a monitor of the process of coordination.
- Effective 'coordination' is best achieved by providing a service (such as sector planning and technical assistance) rather than coordination by control.
- The co-ordinating body should have a secretariat (staffed by active, experienced and respected professionals) through which it can provide services to and co-ordinate the sector.
- The collaborative process works best when all parties (including non-governmental and community) are involved.
- The emphasis must be on effective communications leading to attitudinal changes among individuals and organisations.
- Complementary needs enhance collaboration. Each party brings different resources and experience to the table. Where the needs of one agency can be met by the resources of another, collaboration can be very effective.
- The underprivileged, such as the low-income and low caste groups, are frequently ignored. This is also true of women, who should play a central role in collaboration but are commonly left out of the dialogue. Participatory methods are now available to enhance their participation.
- Transparency of information is a key ingredient for project success. Working from a common understanding improves collaboration at the project level.
- NGOs are valuable assets to sector development yet they are too often perceived as being too independent and working outside of government policy and planning. The collaborative process is well suited to building trust and confidence between government and NGOs while at the same time drawing on their considerable knowledge and institutional resources for sector development. Support to NGOs which respects their individual interest and plurality of approaches reduces differences and encourages compatibility between programmes.

Source: WSSCC Working Group on Country-level Collaboration

### 3-5 Developing a Culture of Collaboration

Collaboration is required to achieve synergy of action - collaboration as everyone's business. This requires dialogue, planning, budgeting and commitment, and strategies leading to joint action plans.

Collaboration is needed both vertically (between all levels from local communities to national and international authorities) and horizontally (between agencies, departments, NGOs, activists and between the public and private sector). The strategy should involve a framework of collaboration to guide relationships involving people, authorities and sector professionals.

This need for collaboration begins within the water, sanitation and hygiene sector itself. When functions related to water supply, sanitation and hygiene are dispersed and often duplicated, increased collaboration is essential. A sustainable service is a complex combination of elements of which physical infrastructure is only a part, and of which the construction phase is only the beginning.

Traditionally these elements have been the concerns of separate professionals or agencies. They include such issues as dealing with users or consumers; setting tariffs; permitting connections; administrative functions of revenue collection, staff, procurement, stores; ongoing staff training; physical infrastructure, and operation and maintenance.

Effective water management requires working with all stakeholders at the catchment and ultimately the river basin level. All forms of land and water use that affect the freshwater ecosystem (and thus the ability to provide sustainable water and sanitation services) need to be planned.

Collaboration is also essential between the water, sanitation and hygiene sector and related sectors of health, education, environment, community development and agriculture. Particularly important is collaboration between government and civil society. This holds an enormous potential of combining the strengths of specific approaches and skills which each of these partners have with respect to ensuring services, as well as in preserving the quality of the natural environment. Joint action should also be encouraged between activists in water, sanitation and hygiene and in other areas, such as the women's movement or religious groupings. The VISION 21 process itself now offers an experience of collaboration on which all partners can draw.

As in most governments, the UN and other external support agencies, functions related to water, sanitation and hygiene are often dispersed and duplicated across several departments. There is a lack of communication and co-ordination and in many instances, outright competition. Recent years have seen the beginnings of an attempt to restructure these institutions so that issues can be better addressed collaboratively. This beginning needs to be accelerated.

### 3-6 Prioritising Hygiene and Sanitation

Without the support of adequate sanitation and hygiene practices, it has been demonstrated that water supply alone has a limited impact on public health. The hygiene and sanitation future essential to this Vision is not only feasible through available experience and technologies, it is also affordable. This leaves no excuse for resisting change, in which the essential factor must now be sound hygiene behaviour. A strategy for hygiene and sanitation (where opportune integrated with water services) is therefore essential to achieve greater health improvement. Such a strategy must reflect the local reality of water resources, which can vary significantly e.g. between dry and humid areas.

While it is justified to include sanitation and hygiene within a basic requirement (see chapter 4), the flawed tendency to assume an automatic link between water supply and sanitation has denied sanitation taking its rightful place as a major intervention for improving the human condition. Inclusion of sanitation and hygiene next to water affirms that these are three independent, though interlinked, interventions each of which can have a positive impact on people's lives and on a healthy environment. Future planning needs to reflect this synergy.

There are important implications here in planning for human development. Some community-based sanitation projects have shown sanitation's potential as an entry point for gender equity and empowerment, and hence for other development work. Some have moved away from the traditional subsidy-led approach (which does little to realise people's genuine priorities for sanitation or to reduce their dependence on outsiders) towards awareness raising and social marketing.

Changing household hygiene behaviour is one of the most effective means to prevent disease transmission. For this, formative research must be encouraged in order to develop effective social marketing approaches (particularly on excreta-handling and on hand-washing). Therefore hygiene education and communications strategies aimed at behaviour change must be key elements in future efforts.

In sanitation, the most important unit for decision-making should be the household. Its members need to be encouraged to begin by improving their situation unaided, using their own resources. If they have difficulties, they need to be able to involve the broader community to help. If the community in turn has a problem, it should be able to involve other levels: perhaps first the district, then the provincial or state authorities, and finally access support from the national level.

Communities and leaders must take responsibility for ensuring that sanitation and hygiene are a genuine priority alongside, or even ahead of, water supply. School sanitation, in particular, can play a crucial role. A combined strategy focusing on educating children, providing adequate facilities, and educating parents can have optimum impact.

A demand-responsive approach to sanitation requires a social marketing effort aimed at demand creation. This function is distinct from the provision of sanitation and requires specific expertise. Social marketing can also encourage people to invest in sanitation with loans

### COLLABORATION BETWEEN AN NGO AND A MUNICIPAL AUTHORITY

Anjuman Samaji Behbood (ASB) is an NGO working in Faisalabad, Pakistan. The people of Hassanpura, a slum community, identified water as a top priority and asked ASB to help them with it. The Faisalabad Water and Sanitation Authority (WASA) would not provide a connection because Hassanpura was included in a possible scheme scheduled for 2008, funds permitting. So ASB and the people decided to go ahead on a self-help basis, with the community providing 100% of the capital costs because they could see the future benefit of ending their dependence on expensive water vendors. WASA gave a Certificate of No Objection, and connected the community-built distribution pipeline to the mains supply.

WASA has gained a new, legal customer at minimal capital cost, while the people of Hassanpura have gained a cheap and reliable water supply. All this was only possible due to the collaboration between the community, ASB and WASA.

Source: ASB

### COMMUNITIES INFLUENCING GOVERNMENTS' DECISION-MAKING

In 1993, the United States and Mexico established the Border Environmental Co-operation Commission. Built-in openness to public participation has, to date, helped fend off and at times reverse autocratic and technocratic solutions. In pursuing its twin goals of openness and participation, the commission has been aided by BECCnet, an Internet-based discussion group.

Since its initiation in 1995, BECCnet has significantly influenced decision making on a number of occasions. Several projects have garnered widespread community support. For example, the Integral Project for Water, Sewage and Wastewater Treatment of Naco, Sonora (in Mexico), drew uniformly strong support from the public and from environmental groups. This project attempts a comprehensive solution to water supply, wastewater collection, and treatment. Implementation of this project, which was completed in 1997, is alleviating the ongoing problem of crossborder sewage spills into Naco, Arizona (in USA), meeting the water infrastructure needs of the community of Naco, Sonora and reducing groundwater abstraction through agricultural reuse of the treated wastewater.

Source: IRC



## AN EXAMPLE OF AN INTEGRATED PROGRAMME OF HYGIENE, SANITATION AND WATER

NEWAH (Nepal Water for Health) is a Nepali NGO that has recognised the need for hygiene promotion and education as an integral part of water and sanitation projects since its inception in 1992. Over the last ten years NEWAH has developed an extensive programme of hygiene promotion and education in its projects. The programme is tailored to the specific needs, cultures and locations of the communities.

The main points usually covered by the hygiene education are:

- safe disposal of excreta (including from children)
- hand washing at critical times
- disposal and use of waste water
- protection of drinking water in transit and in the home
- food hygiene
- domestic and environmental hygiene
- knowledge of paths of infection
- simple domestic treatment e.g. oral rehydration therapy for diarrhoea, saline-rinsing for eye infections, water-cooling of burns

A detailed study of the impact of hygiene education in all projects carried out in one typical year (with a combined population of some 50,000 people) showed major improvements both in people's knowledge and their actual practices. These improvements corresponded to real health gains: people reported 58 deaths from diarrhoea in the project areas in the year before project implementation, which reduced to zero in the following year.

NEWAH's experience shows that integrating hygiene promotion and education with water and sanitation projects is a very successful approach to maximising the benefits to a community of a supply of safe water. NEWAH is actively sharing its experience and lessons with other, larger agencies active in water and sanitation in Nepal.

Source: NEWAH, Nepal

or from their own resources. Private sector organisations (for example, soap manufacturers, who often reach the most remote rural areas) can play important roles in communicating messages.

In addition, research must be conducted to learn more about who exercises sanitation and hygiene responsibilities at household and community levels, and how these responsibilities can be supported. Past experience in other areas of technology development has shown that while women are often expected to do much of the labour involved in new processes, more often than not they are excluded from having any influence on choices and are constrained by lack of information. Women as well as men need to be involved in decision-making and planning, and to get equitable access to information and technology.

The need for changes in roles should also be investigated. Past emphasis on women has assumed that men do not have responsibilities in health education and hygiene, and therefore attention has so far been directed primarily at women. There is now a need to focus more strongly on men, to ensure that they accept their own responsibility for health and hygiene at both household and community levels.

Sanitation services will also need to be developed in a framework that supports health and human dignity, balancing the needs of people with those of a healthy environment. The twin objectives of people leading healthy and productive lives and a protected and enhanced natural environment must be met. To achieve this, additional work on several factors is needed. Presently, sanitation technologies are being developed that minimise the use of scarce water. The importance of accelerated research and development in this area cannot be overemphasised in the context of the great variety of urban and rural needs and capacities.

It is becoming increasingly difficult to sustain the present level of waste disposal services. New and ecologically sound sanitation systems must therefore be devised, and that will require further research and investment. The resulting systems must also account for the increasing scarcity of water and the high cost of conventional sewage systems.

Various "ecological sanitation" efforts are now underway in many parts of the world. One of those is an experiment that attempts to change prevailing concepts of sanitation by keeping pathogens (faeces) apart from nutrients (urine) and water. It underlines the need to transform the way most societies regard human excreta, associated with shame and disgust. Instead, human excreta should be accepted as a resource to be used rather than as waste to be discarded. If human excreta is to be used as fertiliser in food crop production, as one input in a poverty-reduction strategy, there is a further need to identify the roles of women and men and to focus inputs accordingly. In many parts of the world, women have the prime responsibility for food crop production and therefore would be essential actors in such basic processes of change.

## INNOVATIONS IN HYGIENE AND SANITATION

The Socio-Economic Units Foundation in the Indian State of Kerala has played a major role in India's first effort for universal coverage with permanent, consistently used latrines of good quality. The Units focused on enabling local government and water committees to plan and implement their own sanitation programmes. The programme was launched to provide poor households with permanent latrines. A demand-responsive approach was developed before that concept had become internationally recognised. 36,000 latrines (that are in general consistently used and well maintained) were constructed between 1989 and 1994, before the programme began to move to scale. Hygiene education, drainage, chlorination of wells and school sanitation programmes were added. For the first time, poor families contributed substantial amounts (equivalent to around one month of the official poverty-line salary) before construction and provided materials and services related to construction. After the programme gained popularity, the local government began contributing 15 percent. Later, state and national governments began to provide contributions. The cost of a latrine (at 1995 prices) ranged from the equivalent of \$55 to \$76 with an overhead of \$3 to \$6 per unit. Due to strong cost control, this is less than half the cost of the same model of latrine under other programmes. The programme combines two features usually thought to be contradictory: a demand-sensitive approach and equity.

Source: IRC (Netherlands) and SEU Foundation (Kerala, India)

## NO-SUBSIDY/LOW-SUBSIDY SANITATION IN INDIA

The Sulabh movement created by Dr B Pathak and a small group in Bihar state in 1973 as a microlevel project for social reform and cost-effective sanitation has evolved into a major movement. Its prime mission is to uplift the miserable conditions of millions of scavengers who traditionally have cleaned human excreta manually. Sulabh developed and introduced a system of pay-and-use community toilets with additional facilities for bathing, washing and 24-hour attendant service. Soap powder is supplied for hand washing. Users have to pay a nominal charge for toilets while children, the disabled and the poor enjoy free service. Use of the urinal is free. This zero-subsidy system is a unique example of community awareness and participation, which has extended to the development of other low-cost, water-saving and user-friendly sanitation technologies. The result of Sulabh's efforts is a dramatic decline in open-air defecation, the conversion of some one million dry latrines into Sulabh toilets used by over 10 million people each day, and employment opportunities for 50,000 persons in this commercially viable enterprise. Resettlement in other employment has been achieved for 50,000 scavengers through education and training schemes for them and their families.

Source: Sulabh Sanitation Movement, New Delhi

## INNOVATIVE OPTIONS IN ENVIRONMENTAL SANITATION

There are three main components of excreta: nutrients, water and pathogens. Most pathogens come from faecal matter, while most nutrients come from urine. Because most pathogens need nutrients and water to stay alive and reproduce, it is highly desirable to keep pathogens (or faeces) apart from nutrients (urine) and water. Therefore it is also highly desirable that these are not mixed. If urine and faeces are never combined, each is easier to handle and process to take advantage of the resources and regenerative capacity of each. This would make it easier to recycle and reuse the nutrients and water-holding as well as soil-building capacity of excreta. It would prevent environmental contamination and help restore the reproductive capacity of land. Less freshwater would be used to transport excreta away from people and less artificial fertilizers used to restore fertility to the land. The challenge therefore is to eliminate the concept of waste, and not the waste itself, and to move toward natural resource conservation.

'Ecological sanitation' practices are now being applied in Asia, Africa, Latin America and Europe. In El Salvador, a peri-urban community discovered that diversion of urine eliminated flies and smells, and eco-sanitation units have been installed in homes. In Mexico, people are experimenting with urine in urban agriculture as well as for growing traditional foods. In Kenya and Zimbabwe, "arbor loos" are being developed to plant trees for household use. In the Pacific, livelihoods were threatened by dumping into coastal waters. 'Ecological sanitation' solutions were implemented to reduce contamination and restore fish populations. In Sweden, eco-communities are selling urine to farmers to apply to cropland.

Source: Esrey and Andersson



## 10 LESSONS ON GENDER

1. Gender is a central concern in water and sanitation
2. Ensuring both women's and men's participation improves project performance.
3. Specific, simple mechanisms must be created to ensure women's involvement.
4. Attention to gender needs to start as soon as possible.
5. Gender analysis is integral to project identification and data collection.
6. A learning approach is more gender-responsive than a blueprint approach.
7. Projects are more effective when both women's and men's preferences about 'hardware' are addressed.
8. Women and men promote project goals through both their traditional and non-traditional roles.
9. Non-governmental organisations and especially women's groups can facilitate a gender-balanced approach.
10. Gender-related indicators should be included when assessing project performance.

Source: World Bank Toolkit on Gender in Water and Sanitation

## GENDER IN NEPAL

Nepal is a male-dominated society in which women have low status and position. The Nepal Government's Community Water Supply and Sanitation Programme, supported by UNICEF, aims to ensure women's participation by institutionalising their roles in planning, design, sanitation promotion, hygiene education and monitoring and evaluation.

Phoolmati Rajbanshi is a Sanitation Motivator in this programme. This work has changed her life. Participating in meetings along with men was a new experience for Phoolmati. It allowed her to express her own opinion and to seek the opinions of other women on issues that were important and now within her capacity to improve, such as health and hygiene. Exchange visits provided Phoolmati's first opportunity to travel far from her village. Husbands or fathers of the women participants often accompanied them on these visits, which was a sign of the community's support for the changing role of the women. Phoolmati's small remuneration from the project supplements her family income. She has new confidence due to the recognition of her capabilities. Now she has many plans to improve her economic and social situation. So, also, have other women in her village for whom she is a role model.

Involving women in the programme has brought better results. Systematic studies have compared project areas with and without women's involvement in the CWSS programme. They showed higher coverage and maintenance of both water supply and sanitation facilities, better hygiene awareness and lower incidence of water- and sanitation-related diseases in those areas where women were involved.

Source: UNICEF Nepal

## 3-7 Integrating Gender into Planning and Action

Strategies are essential which can ensure that a gender perspective informs each stage of action toward realising the goals of VISION 21. Its achievement is impossible without a more equitable and efficient sharing of roles and responsibilities between men and women. Gender alone is not the only dichotomy; there are others, involving class, religion and ethnicity. Dealing with gender can help raise the capacity to deal with other concerns.

The gender approach can be controversial because it raises sensitive issues that challenge power structures and confront social and cultural norms. This reality demands the utmost care and respect from communities, governments and donor agencies.

One approach toward priority for gender approaches is through ensuring ongoing gender analyses. These can track the contributions of women and men, assess the impact of interventions upon them, reveal the pace of change and progress, and identify means to involve both men and women more equitably. Excellent tools and techniques exist for this, developed and tested throughout the world during the Water and Sanitation Decade.

Experience has revealed that the water and sanitation sector is inherently biased towards men, and often as a consequence, against women. The biases at work include general preferential attention to men (as discussants, informants and participants) and discrimination against women as clients, participants and stakeholders, as well as the failure to value adequately the work of women in household water management. The consequence is a perception of women's contributions as secondary and supportive rather than central in the sector.

In addition, households and communities are often treated as undifferentiated homogenous units, in turn leading to a neglect of inequalities within households. Women are perceived as dependants of men and often treated as a vulnerable group rather than as key actors. The result is that efforts to involve women are often regarded as a "kindness" to them rather than as a factor essential to effective development within the sector.

For all these reasons, sector professionals should be trained to be sensitive to gender issues and know how to deal with them. Institutions, trainers and curricula for capacity building, as well as training tools are all available.

Indeed, it is also important to analyse from a gender perspective the processes, structures and institutions of the sector itself, in order to assess and remove any built-in constraints to promoting greater equality. Networks can speed and assist the flow of relevant information and experience between countries and between the North and South. All this will require funding mechanisms. Sector budgets are needed that seriously reflect an acceptance of gender considerations. Methods and experience have emerged over recent years that can relate the costs of mainstreaming gender to its enormous benefits. Their use and promotion are matters of the most urgent relevance to the realisation of VISION 21.



### 3-8 Responding to the Urban Poor

In finding solutions for urban and peri-urban water supply, sanitation and hygiene, the same actions apply as mentioned in section 3-1. The urban poor should be seen as active leaders in their own development, not as passive recipients of other people's aid. Water, sanitation and hygiene should be planned specifically to use the leadership, energy and creativity of the poor. It is they who should benefit the most.

The particular potential of women in urban areas in advocating and implementing change should be identified and built upon. In many urban areas women have taken responsibility for promoting and implementing improvements to water supply and sanitation and for health education inputs. Efforts need to be made to increase women's participation in decision-making and resource management in these areas.

Recent developments can guide urban strategies. The first of these is the development of new partnerships. These may reflect the unique characteristics and complexities of working in informal settlements. Policy constraints are often cited as a key reason for not extending services, even where policies are not restrictive. Utilities are not well equipped to deal with working conditions in informal settlements, including problems of revenue collection. This creates a disincentive for expanding services, and thus requires the support of partners, particularly from within the settlement itself.

The second recent development of merit has to do with policy and institutional frameworks. The private sector (formal and informal) can bridge the gap between the utility and the poor. However, appropriate standards, guidelines and regulations are necessary to safeguard the poor from exploitation. Experience suggests that clear operating rules and procedures are essential for increasing access and affordability for the consumer. Where these are not present, the "middle man" is often the beneficiary, developing price-fixing cartels and employing other mechanisms to increase profits. Non-governmental organisations (NGOs) and community based organisations (CBOs) can play an important role in regulating the price of water to the poor through community owned kiosks/systems that sell water at affordable prices. They in turn may need assistance to develop their commercial capabilities. Decentralisation should be seen as one of the major steps towards better urban services, provided a solid institutional basis is available. Building these urban institutions is the challenge.

A third recent development is rapid technical innovation. The unplanned and densely populated nature of many poor urban settlements limits the applicability of conventional technology and systems. In addition conventional systems are often expensive to install and run, and costs cannot be recovered at rates affordable to the poor. New approaches are therefore necessary to improve service delivery at affordable levels while enabling revenue collection by the utility.

Another issue to address is the respective roles the consumer, the public sector and the private sector. In many cases these roles are not clearly defined. The result is an asymmetric flow of information and very little transparency. Tariffs are often based on political rather than on cost factors, giving the consumer little chance to judge their fairness.

### INNOVATION IN URBAN WATER AND SANITATION

In Port-au-Prince, Haiti, the public water supply contains enough water for everybody, but only 12% of families are connected to the mains supply. Others have to buy water at higher cost from various private tanks, trucks or carriers. NGOs have therefore established locally based water committees to take responsibility for water distribution within particular neighbourhoods, using a single point supply from the water company. Each committee constructs and operates its own secondary network within a neighbourhood and charges an agreed tariff to the users to cover both the water company's bill and the cost of running the secondary network. The results to date include:

- 10% more of the city's population (specifically in poor neighbourhoods) receive a good water supply
- those people pay much less for their water than previously
- the water committees are using surplus funds to construct other community facilities (e.g. drains, showers, meeting rooms)
- there are good relations between the NGOs, the water committees and the water company, which will lead to more similar systems in future

Source: Hydro-Conseil



## AN INFORMAL SETTLEMENT IN KENYA

Kibera is an informal settlement of some 500,000 people in Nairobi, Kenya, with a density of 2000 people per hectare. A needs assessment was carried out on behalf of the Nairobi City Council to prepare for a major water supply project. The assessment team met 99 community-based groups, 31 institutions (e.g. churches, schools) and many individuals. They assessed community priorities in general and collected specific information on water, sanitation and hygiene issues. Among their findings were:

- The community's overall priorities included: urban environmental sanitation; roads; hospitals; schools; security and street lighting; electricity. Within that list, the environmental sanitation topics were generally ranked 4th.
- Under the general heading of urban environmental sanitation, half of the communities ranked excreta disposal as their highest priority, and half water supply. Drainage and solid waste management were also important, although not highest-ranked.
- Regarding excreta disposal, the people's suggestions included: making latrine pits more accessible for emptying services; requiring landlords to provide adequate latrines for their tenants; introducing payments for use of communal latrines.
- Regarding water supply, the people's suggestions included: establishing more water user groups to manage water distribution; establishing communally-managed tapstands to compete with existing privately-owned tapstands.
- Regarding drainage and solid waste management, the people's suggestions included: replacing open drains by pipes; siting waste collection points in all the community areas; paying for private sector waste collection.

Source: UNDP/World Bank Water and Sanitation Program

New approaches to coping with the urban crisis require extensive research and development work. Such work should receive international support, as each country undertakes research and development specific to its own situations. This can be a major area of global co-operation and sharing.

### 3-9 Transforming Legislative and Institutional Arrangements

Democratisation and decentralisation processes call for an adaptation of the legislative and institutional arrangements that are presently available in most countries. Activities based on household or community action require arrangements that are supportive of decentralised action.

The trend toward enabling communities and local governments to implement their own development should be pursued with vigour. The development of organisational capacity of the poor should be encouraged, so that they can advocate and act for themselves. The movement towards decentralised autonomous water supply and sanitation organisations and the trend of governments acting as enablers, and becoming supporters of decentralised initiative, should also be encouraged more strongly. In all this the necessary balance between human rights and human responsibilities, indispensable to democratic approaches, needs to be ensured. The furtherance of these trends requires political commitment, leadership and strong pressure from civil society on behalf of the poor, to ensure that systems actually do serve them better.

Legal and institutional reform can release both human and financial resources for the achievement of the Vision. There are many immediate benefits in enabling service institutions to generate sufficient income to cover costs and ensuring that they are accountable to users and operate efficiently and sustainably. Viable institutions must have access to capital markets, reducing the burden of new services on governments. They can also be responsible for major maintenance and upgrading, financed from revenues so as to relieve government treasuries of financial burdens. Extension of services to unserved communities by such institutions thus becomes a realistic proposition rather than merely a hope.

The private sector, from large-scale organisations to small entrepreneurs and community groups, has been involved in many aspects of water and sanitation operation. Economic realities in recent years have brought privately owned organisations to the financing of water supply and sanitation services. Privatisation should not be seen as a panacea under all circumstances. However, a strong case can be made for involving the private sector, particularly small enterprises, when other means of reform are blocked and financial constraints are encountered. At local levels, small enterprises, including artisans and mechanics, can play an important role in supporting neighbourhood and community efforts to arrange for their own services.

In many cases public-private partnerships may have a strong role to play. Governments will need to have a controlling and promoting/enabling function, through a legislative frame. Each country could consider a range of contractual arrangements and codes of conduct for private sector initiatives, suited to local politics and culture.

## A PERI-URBAN COMMUNITY IN UGANDA

Banda is a peri-urban community in Kampala, Uganda. The majority of its 12,000 people make a living by casual labour in the city. It suffers from over-population, under-employment and poor sanitation. As to water, most people are served by a few unprotected springs.

Three years ago the people of Banda formed a community development association with the objective of improving conditions in the community. Water and sanitation were the highest priorities. The people protected the springs and also started a piped water supply. They built domestic and communal latrines and constructed surface water drains. They set up user committees to ensure proper usage and maintenance.

The piped water scheme was an immediate success. Eight vending points were constructed, and the community selected water vendors who are employed by the community development organisation. The scheme charges the lowest water charges in the city, yet it successfully pays the vendors and their supervisor, the water bills to the National Water Corporation, and the repairs to the distribution system. Within the first year, three more vending points were constructed.

Although the people's water and sanitation needs have not yet been fully met, the community's initiative in Banda has become a model for other groups in the city, who come to learn from it how they can also start their own water and sanitation programmes.

Source: Charles Wabwire

## PRIVATISED SANITATION

The Rural Sanitation Programme in India started in the late 1980s. One element of it is an Alternate Delivery System, of which Rural Sanitary Marts are a part. The Rural Sanitary Marts aim to educate people about hygiene and sanitation in order to create a demand for improved sanitation, and then to make the necessary sanitary items (such as latrine components) available locally at reasonable prices.

The RSM programme in Uttar Pradesh aimed specifically to shift from a subsidy-based programme (the traditional Government approach) to a privatised one. Over the years, it was noted that offering a much lower subsidy actually increased the sanitation coverage. This idea was replicated in several other states. In Allahabad, the RSMs went further to nil subsidy. Between 1993 and 1998 they sold over 35,000 latrine sets. Under the traditional subsidy system, this would have cost the Government \$17.5 million. Under the new system, it only cost \$60,000 of external support plus managerial support for one and a half years. After that time the RSMs broke even and became commercially viable.

The RSMs have spread across India. National statistics indicate that four times as many people have constructed latrines through private initiative as through the Government's traditional subsidy programme.

Source: UNICEF

## SHARED MANAGEMENT OF WATER AND SANITATION SERVICES

In the drought-prone State of Ceara, one of the poorest states in the North East of Brazil, a Federation of community-based organisations is responsible for the operation and maintenance of all water supply and sanitation services. This system is known as the Integrated Service of Rural Sanitation (SISAR). The Federation has a board comprising seven community-based organisations, three municipalities, the State Water Company and one donor agency. The Federation serves 20 municipalities with a population of 41,000 service users and 5,600 connections. This partnership between the water company, municipalities and community-based organisations aims to bring the management of the service closer to the users and to strengthen the role of each partner. SISAR's objectives are to ensure financial sustainability of all operations, transparency of management, collaboration between the members of the Federation, and hygiene education of the population.

The Federation has been able to break even on operation and maintenance costs, with a 90% cost-recovery rate. The Federation has noted that the poorest users are paying their bills on time. Hygiene education has resulted in significant reductions in infant mortality and in the incidence of cholera. Poor people, who have traditionally been excluded from progress and subjected to top-down policies, have gained access both to water and sanitation and to the decision-making processes. This in turn has achieved a change of attitude among those people. In addition, access to water has provided new economic opportunities for these communities, thus reducing migration to cities.

Source: L.C.Fabbri, D.Hautbergue, World Bank





## MOBILISING HUMAN RESOURCES

Guinea-Bissau is one of the poorest countries in the world, with a life expectancy of 45 and an acute shortage of trained and professional people. The PROCOFAS project is supported by the Water Supply and Sanitation Collaborative Council and UNICEF. It is innovative in terms of mobilising and using human resources effectively in several ways:

- all its staff are nationals of Guinea Bissau, who have developed the project without expatriates
- it aims to change attitudes and behaviours both in communities and in institutions such as the Government
- its working methods in the field vary according to conditions in individual communities
- it works by sharing the time of the extension workers of other, existing, development programmes and hence gives them new skills and experience
- it is led by an interdisciplinary project team of people with expertise in their respective sectors
- its staff begins each project by living in the village concerned.

Source: PROCOFAS

## IT IS EXPENSIVE TO BE POOR

In Port-au-Prince, Haiti, a comprehensive survey showed that households connected to the water system typically pay around \$1.00 per cubic metre, while unconnected consumers forced to purchase water from mobile vendors pay from a low of \$5.50 to a staggering high of \$16.50 per cubic meter.

Urban residents of the United States typically pay only \$0.40 to \$0.80 per cubic metre for municipal water of excellent quality.

Residents in Jakarta, Indonesia purchase water for between \$0.09 and \$0.50 per cubic metre from the municipal water company, \$1.80 per cubic metre from tanker trucks, and \$1.50-5.20 per cubic metre from private vendors, as much as 50 times more per unit of water than residents connected to the city system.

In Lima, Peru a poor family on the edge of the city pays a vendor roughly \$3.00 per cubic meter, 20 times the price paid by a family connected to the city system.

Since the poorest normally spend all their income on food, the money spent on water is most often sacrificed from the food budget.

Source: Dr. P. Gleick

More insight is needed in opportunities of various groups of the private sector, from small enterprises to large corporations. Discussion on alternative advantages and disadvantages can help clarify the interests and capacities of various potential players to fulfil their role.

Organisational structures for managing water supplies can include:

- User cooperatives (particularly suited to managing small-scale drinking water and sanitation infrastructure in rural and peri-urban areas), in cooperation with NGOs or government agencies;
- Private sector initiatives, under government regulation;
- Governmental and semi-governmental enterprises (public utilities) and municipal services, mainly in cities;
- Centralised water departments under a national ministry which manages drinking water and sanitation facilities in rural areas and small urban centres.

Water supply and sanitation services are primarily local in nature. Central governments are often not well placed to deal with them adequately. It is therefore desirable to devolve responsibilities to a level as close to the ultimate users as possible and to formalise service standards and accountability mechanisms. Other important issues include the clear definition of roles and responsibilities of all actors, effective management of sanitation services in addition to water services, and the balance between financial efficiency and social equity.

The implications of the constraints women face relative to men (in terms of human rights, access to and control over resources, and involvement in decision-making) should be taken into account. The potential impact of increased private sector involvement on women also needs to be investigated. The fact that women have informal (and often less influential) roles and responsibilities should be taken into consideration. Opportunities for actively involving women's organisations and networks should be examined.

These institutional and governance factors demand change in the role of support agencies. As agendas are increasingly set at local levels of decision-making, external support must be increasingly sensitive to needs and aspirations reflected in such a decentralisation process.

### 3-10 Mobilising Resources for Affordable Services

The human and financial resources to bring the Vision to reality exist, but their mobilisation requires increased effort.

Mobilising human resources is a task for leaders and sector professionals. It must begin with recognition of people's energies and creativity as the most important asset. Human resources development constitutes an essential part of the mobilisation task, oriented towards problem solving. To make the Vision a reality, a hands-on approach needs to be pursued vigorously. The human resources to be mobilised can be developed effectively through a five-pronged approach: formative years; vocational training; university education; continuous learning; and research capacity strengthening.

How to finance water and sanitation services has been hotly debated over the past years. Many governments have provided these basic services, bearing both the capital and operating costs and charging little or nothing to the users. This has generally proved to be

unsuccessful and unsustainable. Resources for proper operation and maintenance are often lacking, and there is lack of funding for further capital investment. This approach can be summed up as “a free service means no service”.

This Vision presents another approach. It argues for a central place for local people in planning and management. This implies that a dialogue must be started with users and communities at the initial stages of projects, on levels of service, tariffs, revenue collection and administration of services. Their involvement can lead to better recovery of costs and more sustainable services. From small villages to large cities, such consultations will vary in complexity. Consequently, the issue of how such dialogues are planned and conducted requires careful thought.

For discussions on willingness to pay, it is critical to identify and consult with all user groups as well as to consider all uses of water, and to understand the different values placed on each. For example, agricultural users normally do not pay, although they often constitute the largest use of water resources. It is also important to investigate who within households will be expected to pay for water and sanitation services. Women have the greatest responsibility for household water, sanitation, hygiene and health in many parts of the world. At the same time they often do not have the access to or control over the resources and decision-making powers that would allow them to implement their role effectively.

Any discussion of willingness to pay should distinguish between needs and demands. Those with greatest needs in communities may have the least potential for making demands. Users are more willing to pay if operation and maintenance is managed at the local level and if the agency involves them or communicates well with them on levels of service and tariffs. The role of non-government initiatives, both commercial and community-oriented, is emerging as a major factor in broadening economic and social options.

Tariff structures need to be designed to ensure equity and to avoid the rich benefiting at the expense of the poor. The rich should pay the full cost of services. In the case of a regular service, experience shows that recovering full operating costs and part of the capital costs from poor people is often possible. To maintain equity, in some cases a special tax or stepped tariff system may need to be applied, so that subsidies can be used for those who cannot afford regular tariffs.

Expansion of services needs to ensure that those without service receive benefits first, before enhancing services for those already served. Service levels need to be consistent with local affordability. Care should be taken that demand-led approaches encourage, and do not in any way restrict, access to water, sanitation and hygiene by the poor.

Such encouragement may need to involve the creation of mechanisms that give the poor easy access to funding. Examples include the micro-credit arrangements by the Grameen Bank in Bangladesh, the Ramakrishna Mission in India and Social Funds in Africa.

Since an increased level of local financing is expected, experience has yet to indicate the extent to which the principles of VISION 21 will influence total figures of required external resources. It should be noted, however, that while financial considerations are clearly

## TARIFF POLICIES

A study by the UNDP/World Bank Water and Sanitation Program, based on data from Guayaquil, Ecuador, concludes that an adequate tariff system should promote both efficiency in the use of the water resource and financial soundness in the water utility. If the resultant tariff system would exclude the poor from receiving a service, a subsidy is needed that can be provided by the Government's social security system, not by distorting the water utility's tariffs. As another solution, poor people can be cross-subsidised by richer people within the tariff structure. The Guayaquil study produces some clear lessons:

- tariffs should cover all costs
- any subsidies should be explicit and aimed at the poor
- other than those subsidies, tariffs should not discriminate between different consumers
- fixed charges should be minimal, so that the total charges relate to the volume of water used
- charges should be collected efficiently (to avoid the people who do pay their bills cross-subsidising those who do not)
- the water utility should have good data on which to base its tariff calculations.

Source: UNDP World Bank Programme

## BANGLADESH: GRAMEEN BANK'S CREDIT FOR THE POOR

The Grameen Bank is well known as a provider of credit to more than 2 million poor and landless people in Bangladesh. A large proportion of the clients are women. The bank's great innovation has been to find an alternative to traditional forms of collateral. The key principle is that if any borrower defaults, the group to which that borrower belongs is no longer considered creditworthy and is no longer eligible for loans.

In recent years, the lending of the Grameen Bank for rural water supplies has risen dramatically. Since early 1992. The bank has provided loans for about 70,000 tubewells. In 1993, it lent about US\$16 million. The interest rate charged on loans for tubewells is 20 percent, repayable over two years in weekly installments. The handpumps are procured locally by the borrowers, either from the Public Health engineering Department or from local private manufacturers.

Source: UNICEF data as cited in: Ismail Serageldin, *Water Supply, Sanitation, and Environmental Sustainability: The Financing Challenge. Directions in Development.* (Washington, DC: The World Bank, 1994)

## MOBILISING EXTERNAL RESOURCES

There are currently thought to be 1.1 billion people without water and 2.9 billion without sanitation. By 2025, the world's population will have grown by some 2 billion. Hence the numbers to be served by then will be approximately 3.1 billion for water (comprising approximately 0.7 billion rural and 2.4 billion urban) and approximately 4.9 billion for sanitation (comprising 2 billion rural and 2.9 billion urban).

For a basic level of service in accordance with the principles of VISION 21, the average external costs per person (i.e. additional to the costs borne by households or communities) may be estimated as US \$15 for rural water and \$50 for urban water, \$10 for rural sanitation and hygiene promotion and \$25 for peri-urban sanitation and hygiene promotion (in some countries these costs may even be lower).

Multiplying these figures gives a total of approximately \$225 billion to be spent over 25 years, i.e. approximately \$9 billion per year.

Current estimates of annual expenditure on water and sanitation in developing countries range from \$10 to 25 billion, most of which is spent on higher level services in urban centres whose cost is not recovered from the users. Therefore these outline calculations show that the requirement for more money for the water and sanitation sector depends mainly on the political will for cost recovery.

The roles of the different major funding sources will be as follows:

The governments of the developing countries are, and will continue to be, the main source of funds for water and sanitation. By improving the efficiency and cost-recovery of existing urban water and sanitation schemes that serve richer people, the governments' money would become available for the basic community-managed rural, peri-urban and urban services advocated in VISION 21.

Aid finance will continue to be important, as it is generally allocated to basic services for people who are currently unserved.

Finance from privately owned organisations will be important, but will generally not be used for basic services. It will be used to provide higher level services, from which the private sector can recover costs to make a profit. This characteristic of this type of private finance follows from the World Bank's database on Private Participation in Infrastructure, which shows that private investment in water and sanitation in "developing countries" to date totals \$25 billion, of which none is in South Asia and less than \$0.25 billion is in Africa. These are the two regions with the largest unserved populations: this indicates that private sector investment is insignificant in providing basic water and sanitation services to people who are currently unserved (it needs to be added, however, that in many countries in Asia and Africa informal private small scale entrepreneurs have successfully provided access to water in large parts of the cities (water vendors, tanker owners, mechanics, artisans, etc.

Sources: various UNICEF and World Bank publications, analysed by J. Lane

important, the more significant challenge is mobilising political will. Detailed arguments and justification on precisely how much is needed should not receive undue emphasis. Nevertheless for a variety of reasons an overview of total global funding may be required. VISION 21 anticipates that approximately US \$9 billion will be required each year over the next 25 years (see box). This estimate is within the range of current expenditures, and reflects the potential for cost recovery possible through political determination.

The World Summit for Social Development in Copenhagen in 1995 recommended that developing countries allocate 20 per cent of their public expenditure to basic social services for all – including water and sanitation services as well as primary education, primary health care, reproductive health care, family planning and nutrition. As a counterpart, the Summit recommended that donor countries should allocate 20 per cent of their annual aid budgets to the support of the same sectors. In 1998, the estimated actual allocations were 13 per cent and 10 per cent respectively, although these benefited particularly the health and education sectors, and much less the water sector. Increasing both figures to 20 per cent would generate the additional resources required to meet water and sanitation goals. The 20 per cent figures based on original pledges remain valid and useful targets.

Most developing countries have huge debt burdens draining their resources. The pressure for debt relief is increasing as a result. A recent suggestion that 20 percent of such relief should be used to finance health, nutrition, water supply and sanitation deserves serious attention. Linking debt relief to basic service delivery, as a form of debt swap, can serve the dual purpose of relieving countries from their excessive debt burden while ensuring that the money saved is invested in the future of the country and the welfare of its people.

### 3-11 Practising Water Resources Management

As populations increase and the pace of development accelerates, integrated water management must ensure adequate supplies of drinking water. Water for household use risks being under-prioritised in relation to other uses which are considered more productive. Particularly in circumstances of scarcity, water for basic needs should be reserved, acknowledging the human right to water. Water to support the livelihood of the urban and rural poor, including their livestock, is often of equal importance and can form a direct way to address poverty.

A strategy of prioritising water to fulfil basic water and sanitation requirements will achieve adequate water availability, if underwritten by proper legislation. Often the planners who allocate water resources have limited experience of drinking water, so it is important to explain such needs clearly to them.

Conflicts over shared water uses can be minimised by setting standards of allocation and establishing mechanisms to recognise and resolve differences before they become conflicts.

It needs to be emphasised that water availability alone is not enough. Since drinking water quality is an important determinant of human health, it should also be fit to drink. Unfortunately outbreaks of water-borne disease continue to occur worldwide, with major health



effects. Even where water supply and sanitation standards are high, drinking water probably contributes to a significant proportion of prevalent disease.

Risks to the individual from infectious water-borne disease are likely to be highest where water is collected from unprotected sources. They are less in the case of protected sources and intermittent piped supply, and are lowest in continuous piped in-house supply. However, due to the fact that tap water is not always safe water, piped supplies can present a particular risk to public health through the distribution of contaminated water, unless these systems are carefully controlled. Consequently, drinking water quality measurement is an important component of monitoring systems, especially for utilities supplying large communities. The subsequent public reporting of water quality information must be a major element of the regulatory system, ensuring the public accountability of service providers.

The quality of sources for drinking water is often poor, resulting in extensive cost of treatment and considerable risk from treatment failure. Source protection, through better catchment planning and protection and effective pollution control, can reduce health risks as well as costs. Poor sanitation and accompanying lack of sewage treatment are directly linked to disease and environmental degradation, which in turn reduce the availability of clean drinking water.

Ecosystem conservation is vital for meeting the basic needs of people. Properly functioning, well-maintained freshwater ecosystems are the basis of secure systems for water supply and sanitation. In addition to social and environmental benefits, freshwater ecosystems, and the biodiversity they support, have a value, which exceeds the provision of water and the absorption of pollution alone. Present knowledge cannot always clearly assess how far human actions influence the environmental security that underlies wider social and economic security. For all these reasons the avoidance of pollution deserves the highest priority everywhere. Where pollution cannot be avoided, the application of the "polluter pays" principle should be rigidly applied.

There is a need for reliable information on water quality and quantity. In addition to bacteriological contamination attention is also required for chemical contamination, such as arsenic and fluoride in groundwater and mercury contamination from artisanal gold mining.

## ENCOURAGING PRIVATE INITIATIVES

A key element in decentralised planning and implementation is the need to mobilise initiatives outside of governments and conventional authorities. This demands defining roles and responsibilities for the private sector, a blanket term that can cover a variety of interests. Involving the private sector is often seen as the key to resource mobilisation and greater efficiency.

Privatisation can also be regarded as a threat of exploitation, endangering those whose needs are urgent and whose means are limited. Firm regulation by public authorities of private initiatives therefore assumes importance, particularly in negotiating with large-scale operators with the advantage of access to resources and influence. Such regulation needs to reflect transparent systems of decision-making within which the interests of civil society are strongly represented.

Equally relevant is understanding the range of circumstances within which private initiatives need to be encouraged. Rural and peri-urban situations are usually less attractive to large operators than the economies of scale which cities provide. Therefore privatisation may need to encourage small-scale water vendors, suppliers of sanitation services, mechanics and artisans. Experience in West Africa reveals how effective such mobilisation can be.

NGOs have demonstrated their ability both as service providers and in building management capacities. The Orangi Pilot Project in Pakistan and the Sulabh movement in India are examples of efficient urban service and the capacity to independently mobilise resources on a significant scale.

Privatisation also raises the issue of ownership of natural resources. Conditions of scarcity in many parts of the world demand attention to this neglected aspect of the water crisis. It is often only the rich who can afford to dig deeper, establishing their ownership over a resource that should belong to all. The political, legal and ethical dimensions of this challenge are yet to be addressed. They underline the importance of equity and efficient service as benchmarks in assessing initiatives for problem-solving.

## SOME COMPARATIVE COSTS

- In Europe \$11 billion is spent each year on ice cream,
- In the USA and Europe \$17 billion is spent on pet foods
- In Europe \$ 105 billion is spent annually on alcoholic drinks, ten times the amount required to ensure water, sanitation and hygiene for all.

Source: Human Development Report, 1998